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Planning Commission TO: Agenda of: May 28, 2020

FROM: Evan Mattes, Senior Planner Item No.: 4

DATE: May 28, 2020 Legistar No.: 20-0640

RE: DR19-0006/Cool General Retail

The following Traffic Report is to supersede Exhibit K and Appendix G.

TRAFFIC IMPACT ANALYSIS

FOR

COOL DOLLAR GENERAL STORE

El Dorado County, California

Prepared For:

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Revised March 9, 2020 July 24, 2019

Job No. 9470-02

Cool Dollar General



Revised Exhibit K and Appendix G

Transportation Engineers

TRAFFIC IMPACT ANALYSIS FOR COOL DOLLAR GENERAL STORE

El Dorado County, California

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TRAFFIC IMPACT ANALYSIS FOR COOL DOLLAR GENERAL STORE

El Dorado County, California

INTRODUCTION

This report documents **KD** Anderson & Associates' analysis of the traffic impacts associated with developing a Dollar General Store in the rural El Dorado County community of Cool, California. This assessment of traffic impacts has been required by Caltrans District 3. The analysis identifies both current and future background conditions at key intersections in the vicinity of the site. To assess traffic impacts, the characteristics of the proposed project have been determined, including estimated trip generation and the directional distribution / assignment of project generated traffic. The extent of off-site impacts has been determined, and the adequacy of site access has been evaluated.

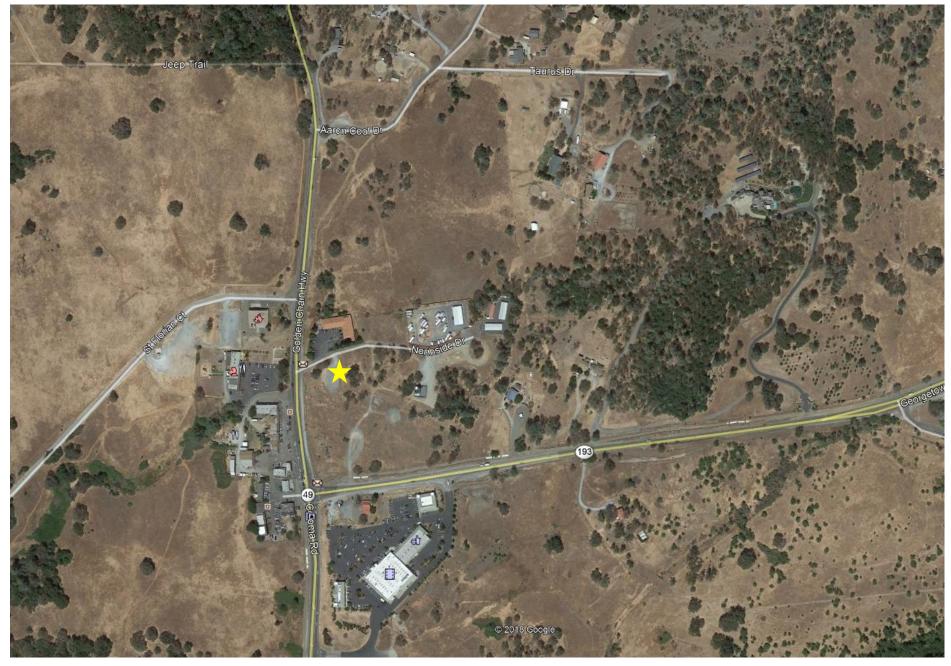
Project impacts have been quantified at the following study intersections:

- 1. SR 49/ St Florian Ct
- 2. SR 49/ Northside Dr
- 3. SR 49/ Commercial Driveway (south of Northside Drive)
- 4. SR 49/ SR 193
- 5. USPS Driveway/ Northside Dr
- 6. Project Driveway/ Northside Dr

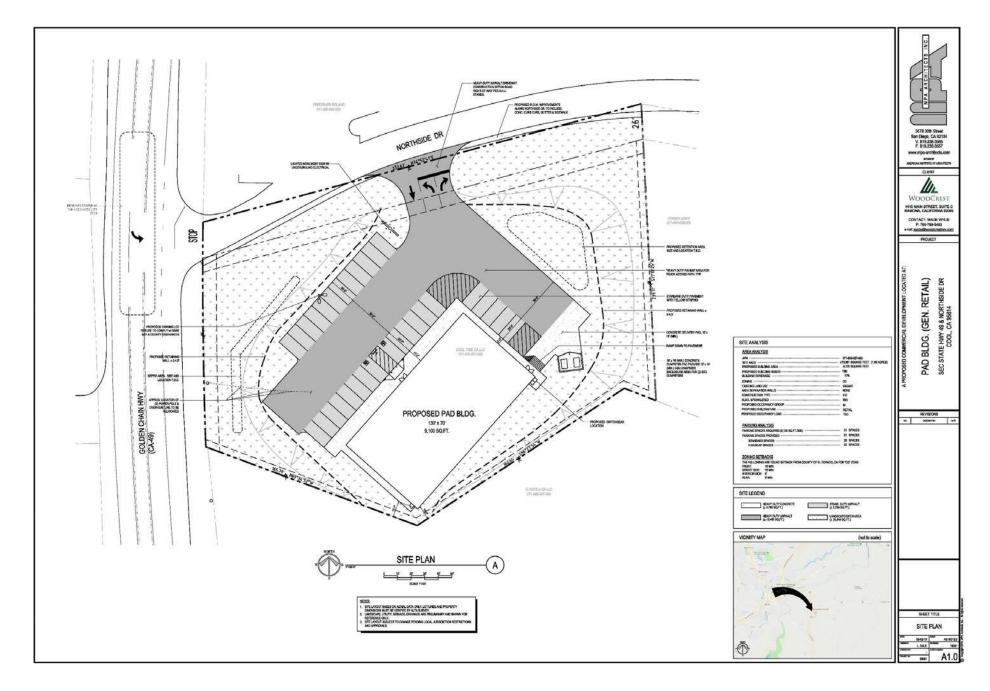
Project Description

The proposed project consists of a 9.1 ksf Dollar General Store located on an approximately 1.68 acre site on the south side of Northside Drive about 190 feet east of SR 49 (centerline to centerline). The project will include development of 31 parking spaces per El Dorado County Zoning Ordinance requirements. Access to the site will be provided via a single driveway on Northside Drive. The driveway is about 35 feet from the USPS Driveway to the west and is about 655 feet from the Cool Boat and RV Storage across Northside Drive to the east. The project's Northside Drive frontage is currently unimproved, and other than access improvements development of the project will not include any other improvements along the Northside Drive frontage. Figures 1 and 2 display the regional location of the project and proposed site plan, respectively.





KD Anderson & Associates, Inc. Transportation Engineers VICINITY MAP



 $K\!D$ Anderson & Associates, Inc.

SITE PLAN

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EXISTING SETTING

This report section describes the facilities that are available today serving vehicular, pedestrian and bicycle traffic and transit users in El Dorado County, as well as policies that guide consideration of traffic impacts.

Study Area Circulation System - Roads

The text which follows provides information regarding the streets included in the study area.

State Route 49 (**SR 49**) serves north-south traffic throughout the Sierra Nevada foothills. In and near El Dorado County, State Route 49 runs from Plymouth in Amador County through Diamond Springs, Placerville, Coloma, Pilot Hill, and Cool to Auburn in Placer County. The portion of State Route 49 between Cool and Auburn contains sections that are narrow, winding, and steep. In the vicinity of the site, SR 49 is a 2-lane facility with no frontage improvements. The posted speed limit is 45 mph near the site and transitions to 55 mph further north. The most recent traffic volume counts published by Caltrans indicate that SR 49 carries an Annual Average Daily Traffic (AADT) volume of 8,800 vehicles per day north of SR 193, and trucks comprise 4% of the daily volume.

Northside Drive is a 2-lane Local street that intersects State Route 49 approximately 600 feet north of SR 193.

State Route 193 (**SR 193**) runs easterly from SR 49 in Cool to an intersection on SR 49 north of Placerville. The two-lane highway is generally far narrower than the Caltrans standard for this type of highway, except for a wider section near Georgetown and a narrower, steep, and winding section north of Placerville. In the vicinity of the site, SR 193 is a 2-lane facility with no frontage improvements, although a separated bike path exists along the northside of the road. The posted speed limit is 55 mph. The most recent traffic volume counts published by Caltrans indicate that SR 193 carries 7,600 AADT east of SR 49, and trucks comprise 6% of the daily volume.

Study Area Intersections

The quality of traffic flow is often governed by the operation of key intersections. The following intersections have been identified for evaluation in this study in consultation with El Dorado County and Caltrans staff.

The **State Route 49** / **St Florian Court intersection** is a "Tee" intersection controlled by an eastbound stop sign on St Florian Court. A northbound left turn lane is present on SR 49. The St Florian Court approach is a single lane, and there are no crosswalks present.

The **State Route 49** / **Northside Drive intersection** is a "Tee" intersection controlled by a westbound stop sign on Northside Drive. A Two-Way-Left-Turn-Lane is present on SR 49. The Northside Drive approach is a single lane, and there are no crosswalks present.



The **State Route 49** / **Commercial Driveway intersection** is a "Tee" controlled by a stop sign on eastbound Commercial Driveway. A Two-Way-Left-Turn-Lane is present on SR 49. The Commercial Driveway is a private drive, and there are no crosswalks present.

The **State Route 49** / **State Route 193 intersection** is a four-way intersection controlled by an all-way stop with an overhead flasher. SR 49 has separate left turn lanes on each approach. A southbound right turn lane exists, and the northbound thru lane is wide enough to allow right turns outside of the queue of northbound traffic. The SR 193 westbound approach is wide enough to act as a combined left-thru lane and a separate right turn lane, and the eastbound leg is a single lane private drive. Crosswalks exist on the south and east side of the intersection.

The **USPS Driveway** / **Northside Drive intersection** is a "Tee" controlled by a stop sign on the southbound USPS Driveway. There are no auxiliary lanes or crosswalks present.

Standards of Significance: Levels of Service - Methodology

To assess the quality of existing traffic conditions, Levels of Service were calculated at study area intersections and for individual roadway segments. "Level of Service" is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening traffic operating conditions, is assigned to an intersection or roadway segment. Table 1 presents the characteristics associated with each LOS grade. As shown in Table 1, LOS "A", "B" and "C" are considered satisfactory to most motorists, while LOS "D" is marginally acceptable. LOS "E" and "F" are associated with severe congestion and delay and are unacceptable to most motorists.

Local agencies and Caltrans adopt minimum Level of Service standards for their facilities. El Dorado County identifies LOS E as the acceptable Level of Service for roadway segments and intersections on County roadways and state highways within the unincorporated areas of the County in the Community Regions and LOS D in the Rural Centers and Rural Regions except as specified in the General Plan. The analysis techniques presented in the *Highway Capacity Manual*, 6th Edition were used to calculate Level of Service and to provide a basis for describing existing traffic conditions and evaluating the significance of project traffic impacts.

The SR 49 Transportation Concept Report indicates that the ultimate Concept Level of Service is LOS D, while LOS D is the expectation for SR 193.



TABLE 1 LEVEL OF SERVICE DEFINITIONS

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues	Little or no delay.	Completely free flow.
	clear in a single-signal cycle.	Ave Delay $\leq 10 \text{ sec/veh}$	
	Ave Delay ≤ 10 seconds per vehicle		
"B"	Uncongested operations, all queues	Short traffic delays.	Free flow, presence of
	clear in a single cycle.	Delay > 10 sec/veh and	other vehicles noticeable.
	Delay $> 10 \text{ sec/veh}$ and $\leq 20 \text{ sec/veh}$	≤ 15 sec/veh	
"C"	Light congestion, occasional backups	Average traffic delays.	Ability to maneuver and
	on critical approaches.	Delay > 15 sec/veh and	select operating speed
	Delay >20 sec/veh and <35 sec/veh	≤ 25 sec/veh	affected.
"D"	Significant congestions of critical	Long traffic delays.	Unstable flow, speeds and
	approaches but intersection functional.	Delay > 25 sec/veh and	ability to maneuver
	Cars required to wait through more	\leq 35 sec/veh	restricted.
	than one cycle during short peaks. No		
	long queues formed. Delay > 35		
	sec/veh and < 55 sec/veh		
"E"	Severe congestion with some long	Very long traffic delays, failure,	At or near capacity, flow
	standing queues on critical approaches.	extreme congestion. Delay > 35	quite unstable.
	Blockage of intersection may occur if	sec/veh and ≤ 50 sec/veh	
	traffic signal does not provide for		
	protected turning movements. Traffic		
	queue may block nearby intersection(s)		
	upstream of critical approach(es).		
	Delay $>$ 55 sec and \leq 80 sec/veh		
"F"	Total breakdown, stop-and-go	Intersection often blocked by	Forced flow, breakdown.
	operation. Delay > 80 sec/veh	external causes.	,
	,	Delay > 50 sec/veh	

Level of Service Methods at Intersections. Levels of Service were calculated for different intersection control types using the respective methods presented in the Highway Capacity Manual, 6th Edition (HCM 6 Ed) using SYNCHRO 10.0 software. For intersections controlled by side street stop signs, the reported Level of Service reflects the "worst case" movement, which is typically those motorists waiting to enter the main street.

Traffic Signal Warrants. The extent to which a traffic signal may be justified is determined based on many factors. From the standpoint of traffic impact analysis, signal warrant criteria contained in the *California Manual of Uniform Traffic Control Devices (CA MUTCD)* are employed in order to assess the relative impact of the additional traffic accompanying a development proposal. For this analysis, Warrant 3 (Peak Hour Traffic) has been employed. Variation in warrant requirements occur based on the design speed of the road (i.e., > 40 mph)



and on the location of the intersection (i.e., rural versus urban locations). In this case, rural criteria for roadway speeds above 40 mph have been employed. It is also important to note that other warrants addressing factors such as pedestrian activity and collision history are necessarily considered before a decision is made to install a traffic signal.

Two-Lane Roadway Segment Levels of Service. Two-lane roadways were analyzed using methods presented in the *Highway Capacity Manual 2010 (HCM)*.

HCM Classifications. A two-lane highway is an undivided roadway with one lane in each direction. Passing a slower vehicle requires use of the opposing lane as sight distance and gaps in the opposing traffic stream permit. As volumes and geometric restrictions increase, the ability to pass decreases and platoons form. Motorists in platoons are subject to delay because they are unable to pass. The HCM divides these roadways into three types: Class I, Class II and Class III. They are defined as follows:

- Class I two-lane highways are highways where motorists expect to travel at relatively
 high speeds. Two-lane highways that are major intercity routes, primary connectors of
 major traffic generators, daily commuter routes, or major links in state or national
 highway networks are generally assigned to Class I. These facilities serve mostly longdistance trips or provide the connections between facilities that serve long-distance trips.
- Class II two-lane highways are highways where motorists do not necessarily expect to travel at high speeds. Two-lane highways functioning as access routes to Class I facilities, serving as scenic or recreational routes (and not as primary arterials), or passing through rugged terrain (where high-speed operation would be impossible) are assigned to Class II. Class II facilities most often serve relatively short trips, the beginning or ending portions of longer trips, or trips for which sightseeing plays a significant role.
- Class III two-lane highways are highways serving moderately developed areas. They may be portions of a Class I or Class II highway that pass through small towns or developed recreational areas. On such segments, local traffic often mixes with through traffic, and the density of unsignalized roadside access points is noticeably higher than in a purely rural area. Class III highways may also be longer segments passing through more spreadout recreational areas, also with increased roadside densities. Such segments are often accompanied by reduced speed limits that reflect the higher activity level.

Measures of Effectiveness. Three measures of effectiveness are incorporated into the methodology to determine LOS on roadway segments:

1. Average Travel Speed (ATS) reflects mobility on a two-lane highway. It is defined as the highway segment length divided by the average travel time taken by vehicles to traverse it during a designated time interval.



- 2. Percent Time Spent Following (PTSF) represents the freedom to maneuver and the comfort and convenience of travel. It is the average percentage of time that vehicles must travel in platoons behind slower vehicles due to the inability to pass. Because this characteristic is difficult to measure in the field, a surrogate measure is the percentage of vehicles traveling at headways of less than 3.0 at a representative location within the highway segment. PTSF also represents the approximate percentage of vehicles traveling in platoons.
- 3. *Percent of free-flow speed (PFFS)* represents the ability of vehicles to travel at or near the posted speed limit.

Speed and delay due to passing restrictions are both assumed to be important to motorists on Class I two-lane highways, and therefore, LOS is defined in terms of both ATS and PTSF on these facilities. Travel speed is not necessarily a significant issue on Class II highways, and LOS is defined in only terms of PTSF on these highways. High speeds are not expected on Class III highways, and since the length of the Class III segments may generally be limited, passing restrictions are also not a major concern. On Class III segments drivers are expected to want to travel at or near the speed limit. Therefore, PFFS is used to define LOS for Class III roads. The LOS criteria for two-lane highways within these three measures are shown in Table 2.

TABLE 2 LOS THRESHOLD FOR TWO-LANE HIGHWAYS

	Class I H	ss I Highways Class II Highways		Class III Highways
LOS	ATS (mi / hr)	PTSF (%)	PTSF (%)	PFFS (%)
A	>55	≤35	≤40	>91.7
В	>50-55	>35-50	>40-55	>83.3 – 91.7
C	>45-50	>50-65	>55-70	>75.0 - 83.3
D	>40-45	>65-80	>70-85	>66.7 – 75.0
Е	≤40	>80	>85	≤66.7
Source: H	ICM 2010, Chapter 15, De	cember 2010		

Standards of Significance. El Dorado County guidelines identify criteria for determining the significance of traffic impacts. A traffic impact is considered to be significant under El Dorado County guidelines if the project causes an intersection to change from LOS D to LOS E. Worsening of conditions at facilities already operating at unacceptable levels of service is also considered a significant impact. The County's General Plan Policy TC-Xe defines "worsen" as any of the following conditions:

- a. a 2% increase in traffic during the a.m. peak hour, p.m. peak hour or daily trips, or
- b. the addition of 100 or more daily trips, or
- c. the addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.



The County's current General Plan Policy TC-Xf notes that for all residential subdivisions of five or more parcels that worsens traffic on a County road as defined in Policies TC-Xe [A], [B] or [C] "the County shall condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element based on existing traffic plus traffic generated from the development plus forecasted traffic growth at 10-years from project submittal." For all other discretionary projects that worsen traffic "the County shall condition the project to construct all road improvements necessary to maintain or attain adopted LOS standards."

However, the El Dorado County Superior Court issued a ruling in July 2017 that found certain provisions in Measure E unconstitutional. The court ruled that the previous language contained in Measure Y was still valid as detailed below:

At the time of approval of a tentative map for a single family residential subdivision of five or more parcels that worsens (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following:

- (1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element based on existing traffic plus traffic generated from the development plus forecasted traffic growth at 10-years from project submittal; or
- (2) ensure the commencement of construction of the necessary road improvements are included in the County's 10-year CIP.

For all other discretionary projects that worsen (defined as a project that triggers Policy TC-Xe [A] or [B] or [C] traffic on the County road system, the County shall do one of the following:

- (1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards as detailed in this Transportation and Circulation Element; or
- (2) ensure the construction of the necessary road improvements is included in the County's 20-year CIP.

Existing Traffic Volumes / Levels of Service

Traffic Volume Counts. New traffic counts were made for this study on June 12, 2019. Intersection turning movement counts were made at study intersections during the period from 4:00 p.m. to 6:00 p.m. The highest hourly traffic volume period within the two-hour window was identified as the peak hour and used for this analysis.

This analysis was limited to the weekday p.m. peak hour based on Caltrans and El Dorado County consideration of SR 49 traffic volumes throughout the day, as well as the relative difference between project's a.m. and p.m. peak hour trip generation. Available data indicates



that the background a.m. peak hour volume is less than that in the p.m. peak hour. As noted in the subsequent assessment of project trip generation, Dollar General Stores typically generate considerably less traffic during the morning peak period.

Figure 3 illustrates the intersection turning movement count data for these intersections. This figure also notes the geometric layout of each intersection and the location of traffic controls. This data has been used to determine the operating Level of Service (LOS) at each intersection.

Level of Service at Intersections. Levels of Service were calculated for different intersection control types using the respective methods presented in the Highway Capacity Manual, 6th Edition (HCM 6 Ed). Intersection Levels of Service were calculated using SYNCHRO 10.0 software. For intersections controlled by side street stop signs, the reported Level of Service reflects the "worst case" movement, which is typically those motorists waiting to enter the main street.

As indicated in Table 3, each intersection delivers a peak hour Level of Service that satisfies minimum El Dorado County standards. Peak hour traffic signal warrants are satisfied at the SR 49 / SR 193 intersection.

TABLE 3
EXISTING INTERSECTION LEVELS OF SERVICE

		PM Peak H	our		
		Average		Signal*	
Intersection	Control	Delay (veh/sec)	LOS	Warranted	
1. State Route 49 / Saint Florian Court					
Northbound left turn	EB Stop	8.7	A		
Eastbound approach		13.7	В	No	
2. State Route 49 / Northside Drive					
Southbound left turn	WD Chan	7.9	A	No	
Westbound approach	WB Stop	16.3	C		
3. State Route 49 / Timberline Commercial Access					
Northbound left turn	EB Stop	9.0	A	No	
Eastbound approach		14.2	В		
4. State Route 49 / State Route 193	AWS	17.7	С	Yes	
5. USPS Driveway / Northside Drive					
Southbound approach	CD Ct - "	8.5	A	No	
Eastbound approach	SB Stop	7.1	A		
* CA MUTCD Peak Hour Signal Warrant, Figure 4C-3.					

AWS is All-Way Stop Control



95th Percentile Queues. Table 4 identifies the 95th percentile queues occurring during the p.m. peak hour at the SR 49 / SR 193 intersection. These values are a byproduct of HCM LOS analysis. As indicated, all estimated queues can be accommodated within the available storage, and no improvements are currently needed.

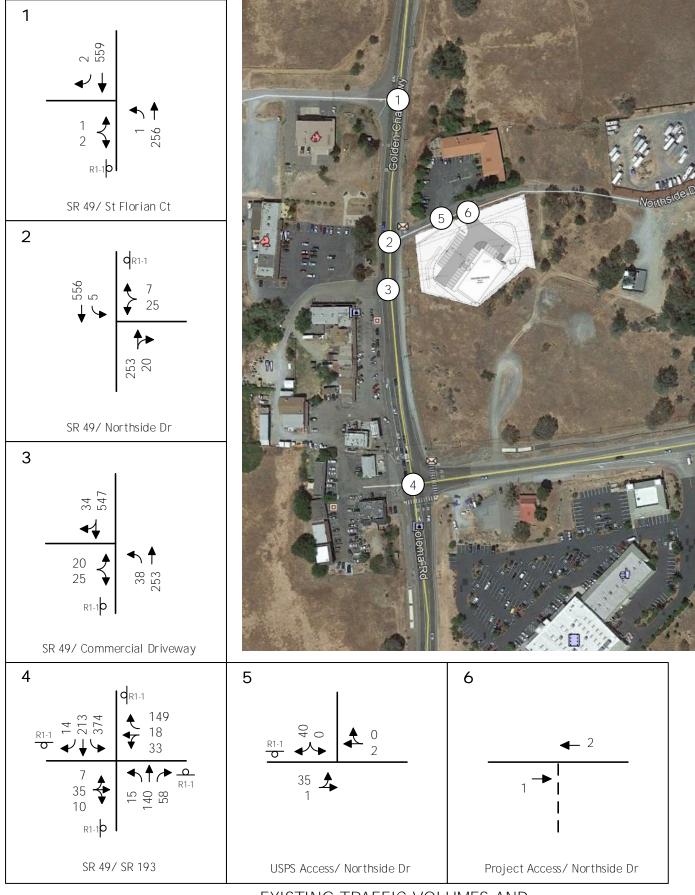
TABLE 4
EXISTING INTERSECTION PEAK HOUR QUEUES

			PM P		
Intersection	Lane	Storage (feet)	Volume (vph)	95 th % Queue (feet)	Storage Adequate?
4. State Route 49 / SR 193	SB left	200^{1}	374	170	Yes
	NB left	150 ¹	15	<25	Yes
	WB approach	unlimited	200	40	Yes

Roadway Segment Level of Service. Table 5 identifies the current operating Level of Service on the roadways in the vicinity of the project. As shown, the roadway segments in this area operate at LOS D, with the exception of southbound SR 49 north of SR 193 which operates at LOS E.

TABLE 5
EXISTING ROADWAY SEGMENT LEVELS OF SERVICE

			PM Peak Hour					
Road Location		Direction	Volume (vph)	ATS (mph)	PTSF (%)	Level of Service		
	North of SR 193	Northbound	257	40.7	53.9	D		
GD 40		Southbound	561	39.5	77.4	Е		
SR 49	a 1 2an 100	Northbound	213	42.1	58.3	D		
	South of SR 193	Southbound	256	41.8	65.8	D		
GD 102	E 4 CCD 40	Eastbound	467	40.3	72.3	D		
SR 193	East of SR 49	Westbound	200	41.6	47.0	D		



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EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Collision History

Traffic collision information was obtained for locations on SR 49 for the period of January 1, 2016 to December 31, 2018. During that time period a total of one collision was reported for the segment from 300 feet south of SR 193 to 300 feet north of St Florian Court. One rear-end collision occurred 65 feet south of SR 193. The statewide average collision rate for rural three-lane roads (i.e., with TWLT lane) is 0.94 per Million Vehicle Miles (MVM). Over three years this ½ mile long segment experienced a rate of 0.42 per MVM.

Alternative Transportation Modes

Pedestrian Facilities. There are currently no sidewalks in the area surrounding the proposed project.

Bicycle Facilities. The *El Dorado County General Plan (2018)* outlines the location and nature of existing bicycle facilities in El Dorado County. Bicycle facilities are categorized within three classifications:

Class I Bikeway: trails or paths that are separated from automobile traffic, Class II Bikeway: bicycle lanes that are on street but delineated by striping, and Class III Bikeway: bicycle routes where bicycles and automobiles share the road.

There are currently separated bicycle paths on the north side of SR 193 that extends for .83 miles from SR 49.

Transit Facilities. The El Dorado County Transit Authority (EDCTA) and Lake Tahoe Transit provide transit service in El Dorado County. The El Dorado County Transit Authority serves the residents of western El Dorado County, providing scheduled fixed-route service, daily commute service to Sacramento, dial-a-ride service in Placerville and outlying communities, and chartered social service routes. Life-line service is also provided to the elderly, the disabled, and Sacramento commuters. For EDCTA's fixed-route service, seven routes are local (within El Dorado County), and 12 are commuter routes to Sacramento County. In fiscal year 2000/2001, EDCTA served nearly 295,000 riders. The commuter service was particularly well used with an average weekday ridership of approximately 500. There are currently no bus routes that run through the surrounding area of the proposed project.

Regulatory Setting

El Dorado County General Plan. The El Dorado County General Plan Circulation Element sets forth future plans for the transportation system in the County.

State Route 49 TCR. Caltrans SR 49 (2017) identifies the long-range plan for this facility. SR 49 in this area will remain a 2-lane conventional highway with concept Level of Service D.

State Route 193 TCR. Caltrans SR 193 (2017) identifies the long-range plan for this facility. SR 193 in this area will remain a 2-lane conventional highway with concept Level of Service D.



PROJECT CHARACTERISTICS

The relative impacts of developing the Dollar General Store and the adequacy of site access is dependent on the physical characteristics of the adjoining street system, as well as the amount of traffic generated by the proposed project. The amount of additional traffic on a particular section of the street network is dependent upon two factors:

- I. <u>Trip Generation</u>, the number of new trips generated by the project, and
- II. Trip Distribution and Assignment, the specific routes that the new traffic takes.

Trip Generation

Trip Generation Rates. This analysis considered trip generation rates derived from several sources. The Institute of Transportation Engineers (ITE) publication "*Trip Generation*, 10th Edition" provides information on the characteristics of various retail uses. The use most similar to Dollar General Store is "Variety Store" (Code 814). The land use description notes that a Variety Store is a retail store providing health care & beauty aids, cleaning supplies, snack food, household items and some apparel. This is not a "dollar store" where everything is priced at one dollar, but rather is a small neighborhood store offering value and convenience. The stores studied were free-standing and catered to the local neighborhood. The 15 sites studied had building floor areas that ranged from roughly 8,000 to 17,000 square feet. Table 6 identifies the trip generation rates reported by ITE.

TABLE 6
TRIP GENERATION RATES

		AM Peak Hour PM Peak Hour				ır		
Land Use / Source	Unit	Daily	In	Out	Total	In	Out	Total
Variety Store (814)	ksf	63.47	57%	43%	3.18	52%	48%	6.82
Dollar General Store	9.1 ksf	578	16	13	29	32	30	62
Pass-by Trips	34%	<196>	<5>	<5>	<10>	<10>	<10>	<20>
Net New Trips		382	11	8	19	22	20	42
Source: ITE Trip Generati	ion, 10 th Editi	on			•	•		•

Trip Generation Forecasts. Table 6 also displays the p.m. peak hour trip generation forecasts for the 9.1 ksf Dollar General Store. The project would generate 62 p.m. peak hour trips at its driveway. A portion of the traffic drawn to these stores would be drawn from the stream of traffic already passing the site. The ITE *Trip Generation Handbook*, 3rd Edition notes that 34% of the weekday trips are "pass-by".

As noted in Table 6, the project is expected to generate 42 "new" trips during the p.m. peak hour.

The volume of traffic generated by variety stores is highest at midday and during the evening commute period. On a daily basis, after discount for "pass-by trips", the proposed project may generate 382 new daily trips (½ inbound and ½ outbound).



Truck Trips. The proposed project will receive regular deliveries from the Dollar General Stores regional distribution center serving this area of California. Project proponents anticipate that 1-2 full size trucks will visit the store each week, although smaller single unit trucks may visit each day. At typical Dollar General Stores some of the full-size trucks are expected to be STAA trucks (53') permitted on California highways under the Surface Transportation Authorization Act. However, when the regional routes providing access to individual stores are not designated for STAA, alternative vehicles are used. This is the case on this portion of SR 49 which is not an STAA terminal route.

The anticipated truck delivery route to and from this site will be to and from US 50 to the south, as noted in the illustration included in the appendix to this report.

Site truck circulation has been reviewed. The project will result in trucks turning into the site and turning first right into the parking aisle that runs parallel to Northside Drive. From that point the truck will back into the aisle towards the store's rear door. After completing the delivery, trucks will proceed to Northside Drive. This is a common Dollar General Store configuration, and the parking layout is wide enough to accommodate these movements.

Vehicle Trip Distribution / Assignment

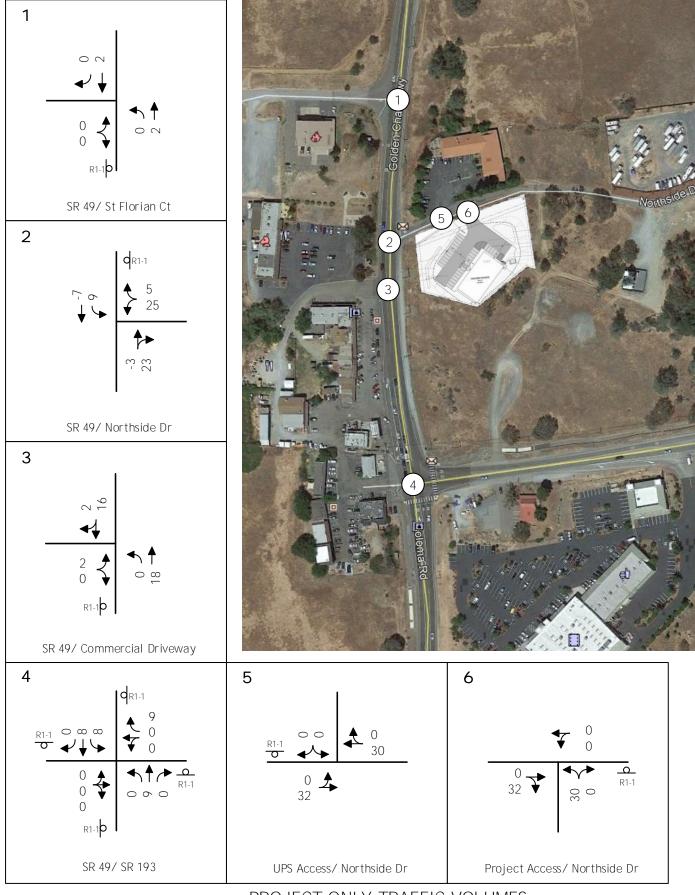
The distribution of project traffic was determined based on knowledge of the demographic distribution of residences and competing stores in this area of El Dorado County and on market characteristics of Dollar General Stores. As noted in Table 7, assuming a primary trade area that extends 1-2 miles from the site, the new trips attracted to the site will arrive primarily from the south along SR 49 and east along SR 193, with lesser shares arriving from the north and from the businesses that already exist along SR 49. Pass-by trips will be drawn from passing traffic on SR 49 in general proportion to the current peak hour volumes from each direction.

TABLE 7
DIRECTIONAL TRIP DISTRIBUTION (NEW TRIPS)

Direction	Route	Percentage of New Trips
North	SR 49 north of Northside Drive	10%
East	SR 193 east of SR 49	40%
South	SR 49 south of Northside Drive	40%
West	Local businesses	10%
Total		100%

Using the trip generation and distribution assumptions described above, the trips generated by the proposed project were assigned to the study area street system. Figure 4 presents peak hour volumes accompanying development of the project.





KD Anderson & Associates, Inc. Transportation Engineers PROJECT ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

PROJECT TRAFFIC IMPACTS

Existing Plus Project Traffic Conditions and Levels of Service

Figure 5 superimposes project trips onto the current background traffic volumes to create the "Existing plus Project" condition. Subsequent tables compare the "Existing" and "Existing plus Project" Levels of Service.

Project Traffic Impacts to Level of Service at Intersections. As shown in Table 8, because the amount of traffic projected to be generated by the project is relatively low, the addition of project traffic would not appreciably increase the length of delays already occurring at study intersections, and the project does not result in any change to the overall Level of Service at each location. Projected increases in delay are calculated to be less than one (1) second. Levels of Service will remain within adopted minimum standards of El Dorado County at each location.

Traffic Signal Warrants. The volume of traffic occurring at each intersection with development of the project was again compared to the CA MUTCD peak hour signal warrant thresholds. Traffic signals continue to be warranted at SR 49 / SR 193 with the project. The SR 193 TCR suggests a roundabout will someday be installed at this location, but no funding is identified. Currently, improvements to this intersection are not included in El Dorado County's regional traffic impact fee program.

95th Percentile Queues. Table 9 identifies the 95th percentile queues occurring during the p.m. peak hour at the SR 49 / SR 193 intersection if the project is developed. As indicated, the queue in the southbound left turn lane may increase by about 10 feet as a result of the project. This queue will continue to be accommodated within the limits of the painted left turn lane. No improvements are needed.

Roadway Segments. As noted in Table 10, the project will add traffic to the state highway segments in this area. However, the volume of traffic is too small to have an appreciable effect on the performance of roadway segments. With the exception of SR 49 north of Cool, LOS D will remain in all areas. The project's contribution to the segment of SR 49 that operates at LOS E is less than the increments used by El Dorado County to judge the significance of the identified traffic increase (i.e., less than 10 trips per hour).



TABLE 8
EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE

			PM Peak Hour				
		Existi	ng No Project	Existi			
Intersection	Control	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	Signal Warrant	
1. State Route 49 / Saint Florian Court							
Northbound left turn	EB Stop	A	8.7	A	8.7		
Eastbound approach		В	13.7	В	13.8	No	
2. State Route 49 / Northside Drive							
Southbound left turn	WB Stop	Α	7.9	A	7.9		
Westbound approach		С	16.3	C	18.5	No	
3. State Route 49 / Timberline Commercial Access							
Northbound left turn	EB Stop	Α	9.0	A	9.0		
Eastbound approach	-	В	14.2	В	14.6	No	
4. State Route 49 / State Route 193	AWS	C	17.7	C	18.8	Yes	
5. USPS Driveway / Northside Drive							
Southbound approach	SB Stop	A	8.5	A	8.7		
Eastbound approach		A	7.1	A	7.4	No	
6. Project Access / Northside Drive	NB Stop						
Northbound approach	IND Stop			A	8.7	No	

TABLE 9
EXISTING PLUS PROJECT INTERSECTION PEAK HOUR QUEUES

					PM Pe	ak Hour		
			No	Project		Plu	s Project	
		Storage	Volume	95 th % Queue	Volui (vph		95th % Queue	Storage
Intersection	Lane	(feet)	(vph)		Project Only	Total	(feet)	Adequate?
State Route 49 / SR 193	SB left	200^{1}	374	170	8	382	180	No
	NB left	150 ¹	25	<25	0	15	<25	Yes
	WB approach	unlimited	200	40	9	209	45	Yes

TABLE 10
EXISTING PLUS PROJECT ROADWAY SEGMENT LEVELS OF SERVICE

				PM Peak Hour									
				Exist	ing			Plus Pr	oject				
Road	Location	Direction	Volume (vph)	ATS (mph)	PTSF (%)	LOS	Volume added (vph)	ATS (mph)	PTSF (%)	LOS			
	North of SR 193 beyond	Northbound	257	40.7	53.9	D	2	40.7	53.9	D			
SR 49	Northside Dr	Southbound	561	39.5	77.4	Е	2	39.5	77.5	Е			
SK 49	South of SR 193	Northbound	213	42.1	58.3	D	9	42.0	58.5	D			
	30uii 01 3K 133	Southbound	256	41.8	65.8	D	8	41.8	65.8	D			
SR 193	East of SR 49	Eastbound	467	40.3	72.3	D	8	40.3	73.9	D			
SK 193	East of SK 49	Westbound	200	41.6	47.0	D	9	41.6	48.8	D			

Project Impacts to Alternative Transportation Modes

Development of the proposed Dollar General Store may incrementally contribute to the demand for facilities to serve pedestrians, cyclists and transit riders in this area of El Dorado County, but this demand is expected to be relatively minor.

Pedestrian Impacts. It is unlikely employees or customers of this project will elect to walk in appreciable numbers to and from the site, as there is little residential or commercial development near the site.

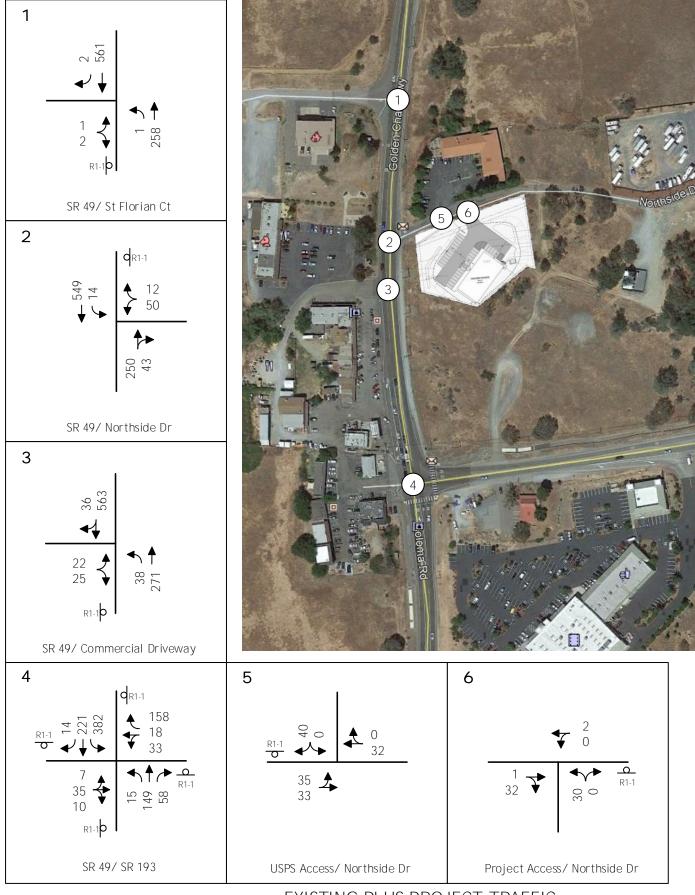
Bicycle Impacts. While the use of bicycles may be an option for employees or customers to the site, such traffic will likely be low. The number of cyclists associated with this project is not likely to create any appreciable safety impacts on SR 49 where the paved shoulder is already available to provide access to the project.

Transit Impacts. Project employees or customers are unlikely to use bus transit service, as no fixed routes pass through the site area.

Site Access

Throat Depth. Access to the site is proposed via a driveway on the south side of Northside Drive. The driveway is 40 feet wide. The main parking aisle is separated from Northside Drive by about 40 feet of throat. Two waiting vehicles can queue prior to blocking access to those parking spaces. This layout is expected to operate satisfactorily given the low traffic volumes projected to be generated by the site. The Level of Service calculations indicate that the 95th percentile queue at the exit will be 1 vehicle or less during peak periods, which can be accommodated in the 40 feet.





KD Anderson & Associates, Inc. Transportation Engineers EXISTING PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

CUMULATIVE IMPACTS

The impacts of the Dollar General Store project have also been considered within the context of future traffic conditions in this area of El Dorado County. Long term traffic conditions have been forecast and evaluated based on forecasts from the El Dorado County regional demand forecasting model.

Year 2040 Long Term Cumulative Conditions

Approach to Developing Traffic Volume Forecasts. In El Dorado County long term future traffic conditions are identified by the regional travel demand forecasting model maintained by El Dorado County. This tool has been employed to develop traffic volume forecasts for the Regional Transportation Plan, and for EIR's prepared for projects throughout the County. The most current version of the model has been employed for this cumulative analysis.

Methods. The approach taken to prepare background traffic volume forecasts for this analysis makes use of data from the current version of the El Dorado County regional traffic model. The incremental change in peak hour traffic was determined on a segment by segment basis through comparison of Year 2015 baseline and Year 2040 forecasts (refer to Appendix for 2015 and 2040 model forecasts). These forecasts indicate that relatively little growth will occur on study area streets.

Traffic Volume Forecasts. Figure 6 identifies "No Project" background Year 2040 traffic volumes, while Figure 7 identifies Year 2040 volumes with Dollar General Store.

No Project Conditions. The following conditions are expected if the Dollar General project does not proceed.

Level of Service at Intersections / Traffic Signal Warrants. Peak hour intersection Levels of Service were recalculated assuming no change to current intersection geometries. As shown in Table 11, without the project all study intersections will continue to operate with Levels of Service that satisfy minimum LOS D standard. Peak hour traffic signal warrants (warrant 3) would be satisfied at the SR 49/SR 193 intersection.

95th Percentile Queues. Table 12 identifies the 95th percentile queues occurring at the SR 49 / SR 193 intersection under cumulative conditions if no improvements are made. As indicated, without the project the queue in the southbound SR 49 left turn lane may reach 300 feet. This distance exceeds the current left turn lane length, and the queue would extend about 100 feet into the adjoining TWLT lane. The back of the queue would be about 50 feet from the beginning of the driveway serving the property on the west side of SR 49. Caltrans may elect to modify the left turn lane striping in the future.



Roadway Segment Level of Service. As noted in Table 13, while background traffic volumes will increase in the future the Level of Service based on HCM techniques does not change. LOS E remains on SR 49 north of SR 193, and LOS D occurs elsewhere.

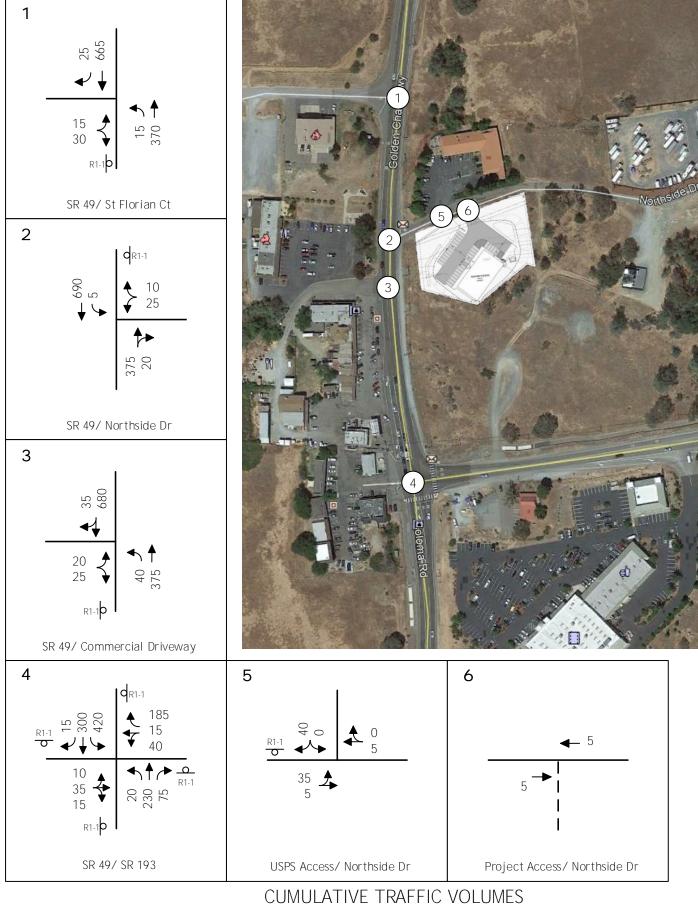
Plus Project Conditions. Adding trips from the Dollar General has the following effects.

Level of Service at Intersections / Traffic Signal Warrants. As noted in Table 11, the addition of project trips does not result in any intersection operating with Level of Service in excess of the LOS D minimum. Thus, the project's impacts are not significant, and mitigation is not required based on Level of Service.

95th Percentile Queues. The addition of project trips would increase this queue to 320 feet. This queue would be closer to but would not reach to the adjoining driveway.

Roadway Segment Levels of Service. The addition of project trips does not change the Level of Service on any roadway segment, and the project's contribution to SR 49 north of Cool remains less than significant based on County guidelines.

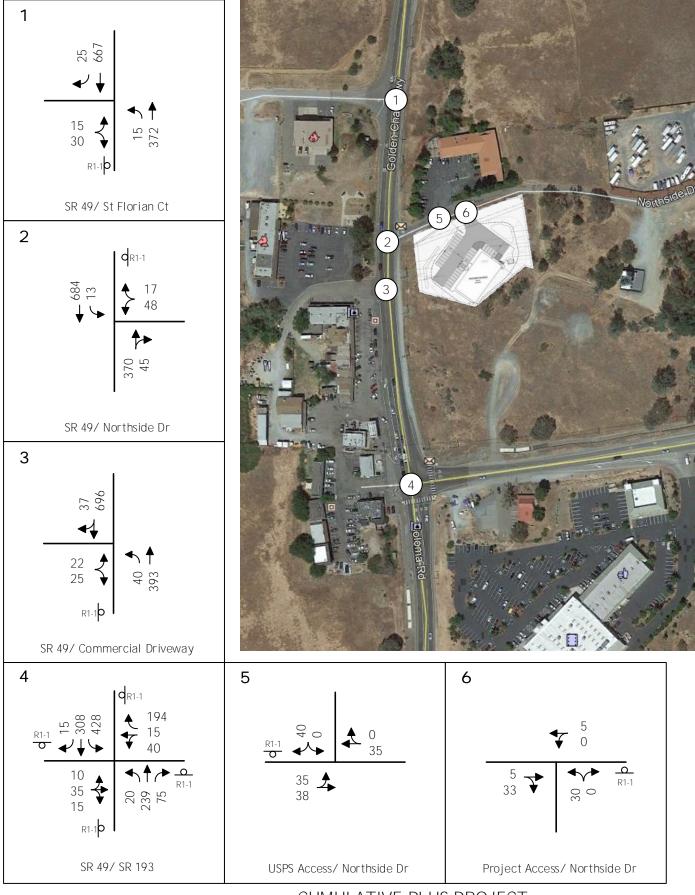
Mitigations. The proposed project would contribute its fair share to the cost of regional circulation improvements by paying adopted fees and making frontage improvements, but no additional mitigation related to roadway capacity and Level of Service is required.



KD Anderson & Associates, Inc. Transportation Engineers

9470-02 RA 3/9/2020

AND LANE CONFIGURATIONS



KD Anderson & Associates, Inc. Transportation Engineers

CUMULATIVE PLUS PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

TABLE 11
YEAR 2040 PLUS PROJECT INTERSECTION LEVELS OF SERVICE

			PM Peak Hour					
		Cumula	tive No Project	Cumula	tive Plus Project			
Intersection	Control	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	Signal Warrant		
1. State Route 49 / Saint Florian Court								
Northbound left turn	EB Stop	A	9.3	A	9.3			
Eastbound approach		С	18.3	C	18.4	No		
2. State Route 49 / Northside Drive								
Southbound left turn	WB Stop	A	8.2	A	8.3			
Westbound approach		С	21.2	D	25.4	No		
3. State Route 49 / Timberline Commercial Access								
Northbound left turn	EB Stop	A	9.5	A	9.6			
Eastbound approach		С	16.6	C	17.2	No		
4. State Route 49 / State Route 193	AWS	D	30.6	D	33.7	Yes		
5. USPS Driveway / Northside Drive								
Southbound approach	SB Stop	A	8.5	A	8.7			
Eastbound approach		A	7.3	A	7.4	No		
6. Project Access / Northside Drive Northbound approach	NB Stop			A	8.8	No		

TABLE 12 YEAR 2040 PLUS PROJECT INTERSECTION PEAK HOUR QUEUES

			PM Peak Hour											
			No	o Project		lus Project								
					Volu (vp									
Intersection	Lane	Storage (feet)	Volume (vph)	95 th % Queue (feet)	Project Only	Total	95th % Queue (feet)	Storage Adequate?						
State Route 49 / SR 193	SB left	200^{1}	420	300	8	428	320	No						
	NB left	150 ¹	20	<25	0	20	<25	Yes						
	WB approach	unlimited	240	65	9	249	70	Yes						

¹lane continues as TWLT lane

TABLE 13
YEAR 2040 PLUS PROJECT ROADWAY SEGMENT LEVELS OF SERVICE

			PM Peak Hour												
				No Pro	oject	Plus Project									
Road	Location	Direction	Volume (vph)	ATS (mph)	PTSF (%)	LOS	Volume added (vph)	ATS (mph)	PTSF (%)	LOS					
	North of SR 193 beyond	Northbound	425	38.6	65.9	Е	2	38.6	66.1	E					
SR 49	Northside Dr	Southbound	735	37.7	84.4	Е	2	37.7	84.4	E					
SK 49	South of SR 193	Northbound	325	41.3	64.2	D	9	41.3	65.5	D					
	South of SIC 193	Southbound	330	41.3	65.3	D	8	41.2	66.5	D					
SR 193	East of SR 49	Eastbound	530	40.1	73.1	D	8	40.1	76.2	D					
SK 193	East Of SIX 49	Westbound	240	41.0	51.7	D	9	40.9	52.9	D					

SUMMARY AND CONCLUSIONS

This report documents **KD** Anderson & Associates' analysis of the traffic impacts associated with developing a Dollar General Store on Northside Drive in El Dorado County, California. The analysis addresses both current and future background conditions at key intersections in the vicinity of the site. To assess traffic impacts, the characteristics of the proposed project have been determined, including estimated trip generation and the directional distribution / assignment of project generated traffic.

The proposed project consists of a 9.1 ksf Dollar General Store located on a 1.68 acre site on the south side of Northside Drive about 190 feet east of SR 49. The project will include development of 31 parking spaces per El Dorado County Zoning Ordinance requirements. Access to the site will be provided via a new driveway to Northside Drive. The Northside Drive site frontage is currently unimproved, with no frontage improvements beyond the driveway improvements are planned with the development of the project.

Trip Generation. The project is expected to generate a total of 578 daily trips, with roughly 11% or 62 trips during the p.m. peak hour. After discounting for pass-by trips already occurring on SR 49 adjacent to the site, the project is projected to generate 42 new trips in the weekday p.m. peak hours.

Existing Plus Project Traffic Conditions. Development of the project alone does not result in a significant impact to traffic based on the criteria adopted by El Dorado County. Satisfactory operations are currently experienced at the study intersections and no changes to existing Levels of Service are projected with development of the site. Traffic signal warrants are met with and without the project at the SR 49/ SR 193 intersection. Current peak period queues can be accommodated within existing turn lanes. The current roadway segment Levels of Service on state highways near the project which range from LOS D on SR 193 and SR 49 south of Cool to LOS E on SR 49 north of Cool will not change as a result of the project, and the increment of traffic added to SR 49 north of Cool falls below the County's significance criteria (i.e., <10 vph).

The project access will be improved to El Dorado County encroachment permit standards.

Long Term Cumulative (Year 2040) Traffic Impacts. The study intersections are projected to operate without significant delays in the future with the existing traffic controls, and the County's LOS D minimum standard for intersections will be met with or without development of the proposed project. The project does not change the roadway segment LOS projected on state highways, and while SR 49 north of Cool will continue to operate at LOS E with and without the project, the increment of traffic added by the Dollar Generals falls below the County's significance criteria. Traffic signal warrants would continue to be met at the SR 49/SR 193 intersection. With and without the project the queue of peak period traffic in the southbound left turn lane at the SR 49 / SR 193 intersection will extend beyond the striped turn pocket. The queue will extend into the adjoining TWLT lane but will not reach the next driveway on the west side of SR 49.



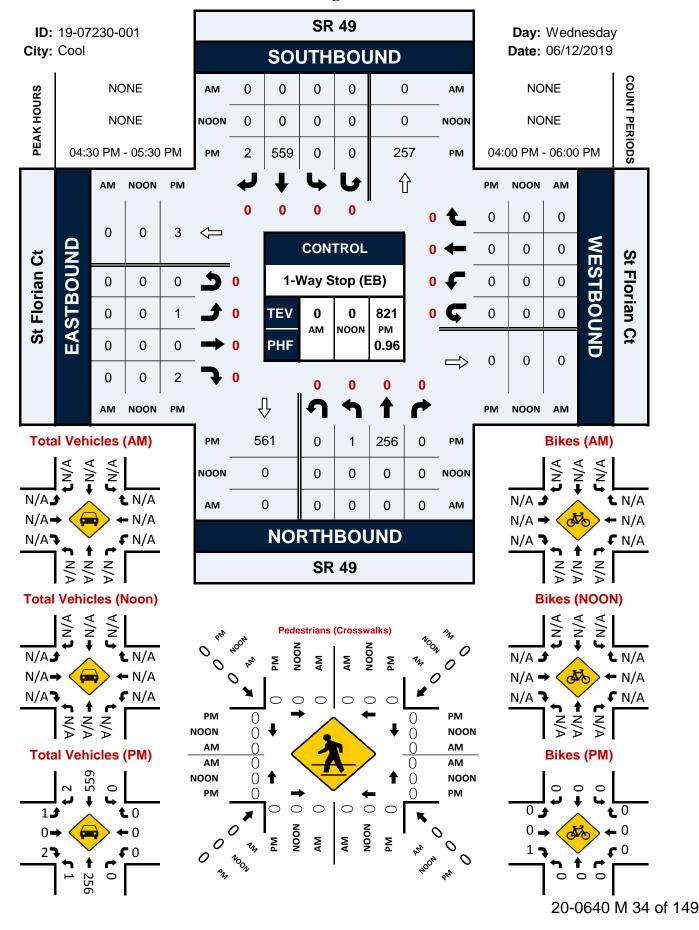
Typically, El Dorado County monitors the operation of intersections, and adds improvements such as traffic signals to the fee priority list as appropriate. The proposed project would contribute its fair share to the cost of regional circulation improvements, including any SR 49/SR193 improvements by paying adopted fees, and no additional mitigation related to roadway capacity and Level of Service is required.

APPENDIX

(Traffic Counts, LOS Calculations)

SR 49 & St Florian Ct

Peak Hour Turning Movement Count



National Data & Surveying Services

Intersection Turning Movement Count

Location: SR 49 & St Florian Ct
City: Cool
Control: 1-Way Stop (EB)
Project ID: 19-07230-001
Date: 6/12/2019

								То	tal								_
NS/EW Streets:	SR 49				SR 49				St Florian Ct				St Florian Ct				
		NORTH	BOUND		SOUTHBOUND					EASTE	BOUND						
PM	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	ТОТА
4:00 PM	0	45	0	0	0	106	0	0	0	0	1	0	0	0	0	0	152
4:15 PM	0	71	O	0	O	101	1	0	0	0	O	0	0	0	O	0	173
4:30 PM	0	69	O	0	0	144	O	0	0	0	1	0	0	O	O	0	214
4:45 PM	1	59	O	0	0	128	O	0	0	0	O	0	0	O	O	0	188
5:00 PM	0	65	0	0	0	139	1	0	1	0	1	0	0	0	0	0	207
5:15 PM	0	63	O	0	0	148	1	0	0	0	O	0	0	O	O	0	212
5:30 PM	0	50	O	0	O	128	0	0	0	0	O	0	0	0	O	0	178
5:45 PM	Ο	54	0	О	0	124	1	O	0	O	1	0	0	0	0	O	180
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTA
TOTAL VOLUMES:	1	476	Ο	0	0	1018	4	0	1	0	4	0	0	0	Ο	0	1504
APPROACH %'s:	0.21%	99.79%	0.00%	0.00%	0.00%	99.61%	0.39%	0.00%	20.00%	0.00%	80.00%	0.00%					
PEAK HR :		04:30 PM -	05:30 PM						04:30 1-04								TOTA
PEAK HR VOL :	1	256	0	0	0	559	2	0	1	0	2	0	0	0	0	0	821
PEAK HR FACTOR :	0.250	0.928	0.000	0.000	0.000	0.944	0.500	0.000	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.959

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR 49 & St Florian Ct
City: Cool
Control: 1-Way Stop (EB)

Project ID: 19-07230-001
Date: 6/12/2019

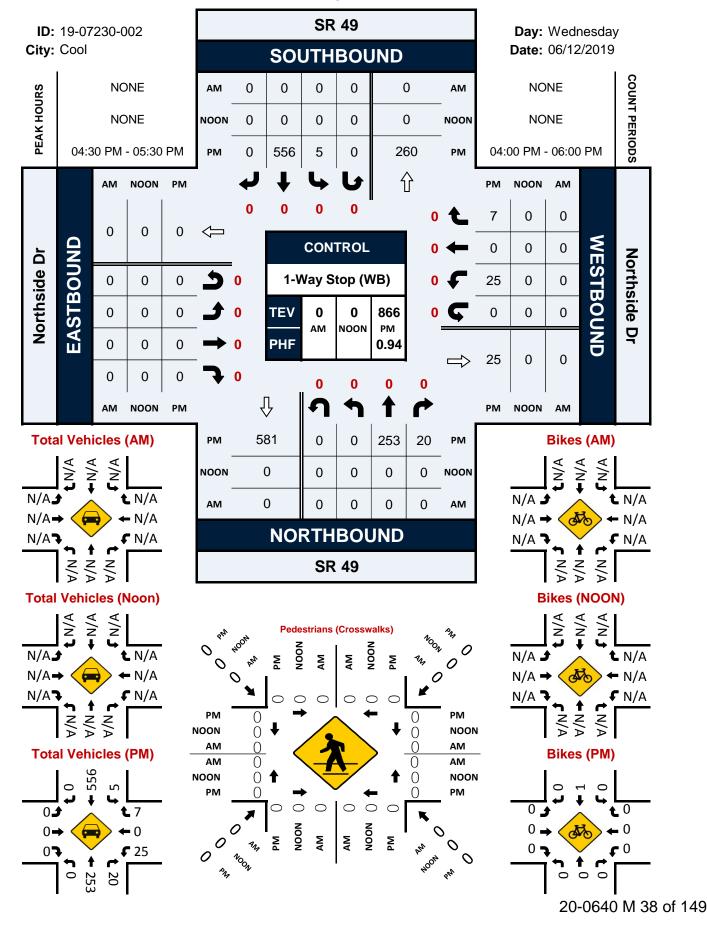
_	Bikes															_		
NS/EW Streets:		SR -	49		SR 49					St Flo	rian Ct							
		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	O	0	0	0	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	O	0	0	0	0	0	0	O	O	0	O	0	0	0	0	0	0	
5:15 PM	O	0	0	0	0	0	0	O	0	0	1	0	0	0	0	O	1	
5:30 PM	O	0	0	0	0	0	0	O	0	0	O	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	O	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
TOTAL VOLUMES:	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	
APPROACH %'s:	100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%						
PEAK HR :	()4:30 PM -	05:30 PM		04:30 -10												TOTAL	
PEAK HR VOL :	0	0	0	0	0	0	0	0	Ο	0	1	0	0	0	0	0	1	
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250 250	0.000	0.000	0.000	0.000	0.000	0.250	

Location: SR 49 & St Florian Ct
City: Cool
Project ID: 19-07230-001
Date: 6/12/2019

NS/EW Streets:	SR	. 49	SF	R 49	St Flo	rian Ct	St Flor	rian Ct	
PM	NORT EB	H LEG WB	SOU ⁻ EB	TH LEG WB	EAST NB	LEG SB	WES ⁻ NB	T LEG SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	O	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	O	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	Ο
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES : APPROACH %'s :		0	Ο	0	O	0	0	0	0
PEAK HR :	04:30 PM	- 05:30 PM							TOTAL
PEAK HR VOL : PEAK HR FACTOR :		0	0	0	0	0	0	0	0

SR 49 & Northside Dr

Peak Hour Turning Movement Count



Intersection Turning Movement Count

Location: SR 49 & Northside Dr
City: Cool
Control: 1-Way Stop (WB)
Project ID: 19-07230-002
Date: 6/12/2019

<u></u>								To	tal								_
NS/EW Streets:		SR 4	19			SR 4	19			Norths	side Dr			Norths	ide Dr		
		NORTH	BOUND			SOUTH	BOUND			EAST	BOUND			WESTE	BOUND		
PM	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	O EL	0 ET	0 ER	0 EU	O WL	0 WT	0 WR	0 WU	ТОТА
4:00 PM	0	43	6	0	2	105	0	0	0	0	0	0	6	0	3	0	165
4:15 PM	0	66	10	0	3	99	0	0	0	0	O	0	10	0	2	0	190
4:30 PM	0	70	6	0	1	143	O	0	0	O	O	O	10	0	1	0	231
4:45 PM	0	57	6	0	2	125	O	0	0	O	O	O	8	0	2	0	200
5:00 PM	0	65	5	0	2	139	0	0	0	0	0	0	3	0	1	0	215
5:15 PM	0	61	3	0	0	149	O	0	0	O	O	O	4	0	3	0	220
5:30 PM	0	47	6	0	1	126	0	0	0	0	O	0	6	0	1	0	187
5:45 PM	O	55	1	0	0	125	0	0	0	0	0	0	2	0	0	0	183
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTA
TOTAL VOLUMES :	0	464	43	0	11	1011	0	0	0	0	Ο	0	49	0	13	0	1591
APPROACH %'s:	0.00%	91.52%	8.48%	0.00%	1.08%	98.92%	0.00%	0.00%					79.03%	0.00%	20.97%	0.00%	
PEAK HR :		04:30 PM -	05:30 PM														TOTA
PEAK HR VOL :	0	253	20	0	5	556	0	0	0	0	0	0	25	0	7	0	866
PEAK HR FACTOR :	0.000	0.904	0.833	0.000	0.625	0.933	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.583	0.000	0.937

Intersection Turning Movement Count

Location: SR 49 & Northside Dr
City: Cool
Control: 1-Way Stop (WB)
Project ID: 19-07230-002
Date: 6/12/2019

								Bik	ces				_				_
NS/EW Streets:		SR	49			SR	49			North	side Dr			North	side Dr		
		NORTH	IBOUND			SOUTH	IBOUND			EAST	BOUND			WEST	ΓBOUND		
PM	0	O	0	0	0	Ο	0	0	0	0	0	O	0	0	0	O	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	O	0	0	O	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	O	0	0	O	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	O	0	0	0	0	0	O	0	0	0	O	О
5:15 PM	0	0	O	0	0	1	O	0	0	O	0	0	0	O	0	0	1
5:30 PM	0	0	O	0	0	O	O	0	0	0	0	O	0	O	0	O	О
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES:	0	1	Ο	0	0	1	O	0	0	O	0	Ο	0	Ο	0	Ο	2
APPROACH %'s:	0.00%	6 100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :		04:30 PM -	05:30 PM														TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250

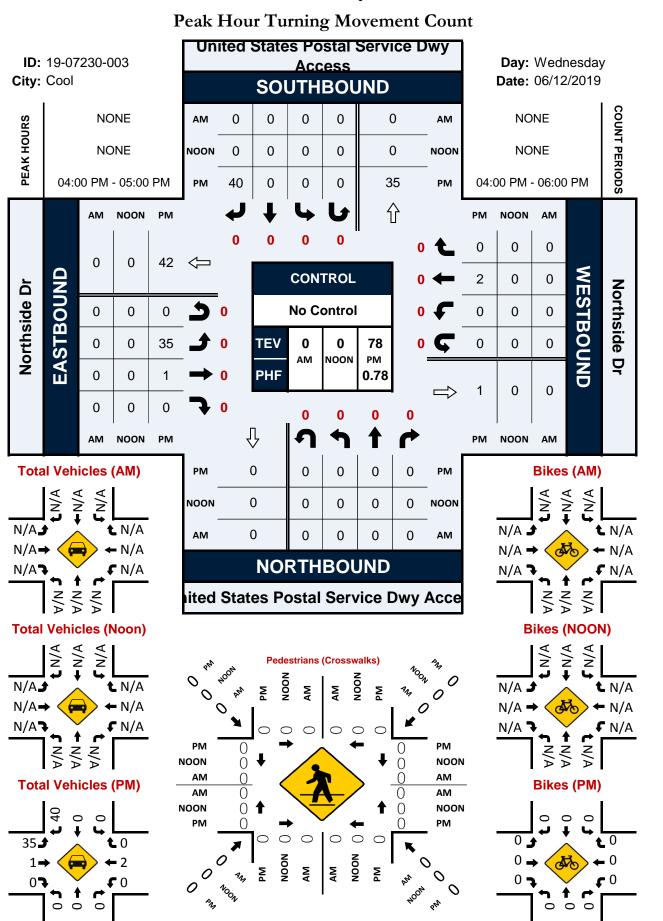
Location: SR 49 & Northside Dr City: Cool Project ID: 19-07230-002

Date: 6/12/2019

NS/EW Streets:	SR	49	SF	R 49	Norths	side Dr	Norths	side Dr	
PM	NORT EB	H LEG WB	SOU7 EB	ΓΗ LEG WB	EAST NB	ΓLEG SB	WES ⁻ NB	ΓLEG SB	TOTAL
4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
5:45 PM		0	0	0	0	0	0	0	0
TOTAL VOLUMES : APPROACH %'s :		WB O	EB O	WB O	NB O	SB O	NB O	SB O	TOTAL 0
PEAK HR : PEAK HR VOL : PEAK HR FACTOR :	0	- 05:30 PM	0	0	0	0	0	0	TOTAL 0

20-0640 M 42 of 149

United States Postal Service Dwy Access & Northside Dr



Intersection Turning Movement Count Location: United States Postal Service Dwy Access & Northside Dr

City: Cool

Control: No Control

Project ID: 19-07230-003

Date: 6/12/2019

_								To	tal								_
NS/EW Streets:	United S	tates Postal	Service Dv	vy Access	United Sta	ates Postal	Service Dw	y Access		Northsi	ide Dr			Norths	ide Dr		
		NORTH	HBOUND			SOUTH	IBOUND			EASTE	BOUND			WEST	BOUND		
PM	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	O EU	0 WL	0 WT	0 WR	0 WU	TOTA
4:00 PM	0	0	0	0	0	0	9	0	8	0	0	0	0	0	0	0	17
4:15 PM	0	O	O	O	0	0	10	0	12	1	O	0	0	2	O	0	25
4:30 PM	0	O	O	O	0	0	12	0	7	0	O	0	0	O	O	0	19
4:45 PM	0	O	O	O	0	0	9	0	8	0	O	O	0	O	O	0	17
5:00 PM	0	0	0	0	0	0	4	0	5	2	0	0	0	0	0	0	11
5:15 PM	0	O	O	O	0	0	5	0	3	0	O	О	0	2	O	0	10
5:30 PM	0	O	O	0	0	0	7	0	7	0	O	0	0	O	O	0	14
5:45 PM	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	O	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOT
TOTAL VOLUMES:	0	Ο	Ο	0	0	0	58	0	51	3	0	0	0	4	Ο	0	116
APPROACH %'s:					0.00%	0.00%	100.00%	0.00%	94.44%	5.56%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :		04:00 PM	- 05:00 PM														TOTA
PEAK HR VOL :	0	0	0	0	0	0	40	0	35	1	0	0	0	2	0	0	78
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.000	0.729	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.780

Intersection Turning Movement Count

Location: United States Postal Service Dwy Access & Northside Dr City: Cool Control: No Control

Project ID: 19-07230-003 **Date:** 6/12/2019

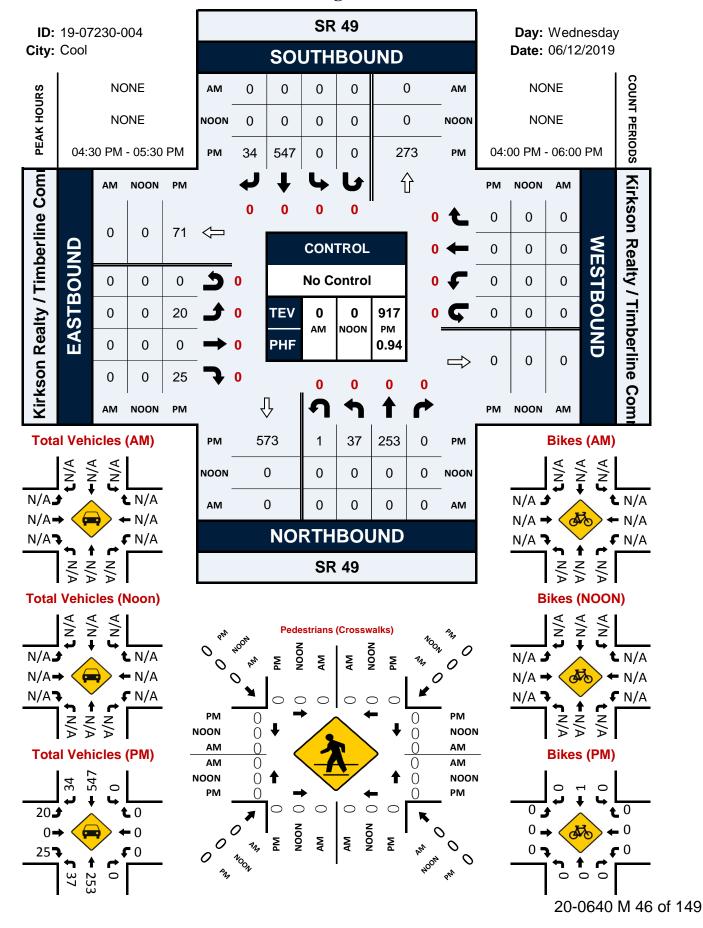
_								Bik	(es								
NS/EW Streets:	United	States Posta	I Service Du	wy Access	United S	tates Posta	l Service D	wy Access		North	side Dr			North	side Dr		
		NORT	HBOUND			SOUT	HBOUND			EAST	BOUND			WEST	ΓBOUND		
PM	0 NL	O NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	<mark>0</mark> EU	O WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	O	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	O	0	0	0	0	0	O	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	O	0	0	0	0	0	0	0	0	0
5:30 PM	0	O	0	0	0	0	0	O	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES : APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ο
PEAK HR :		04:00 PM	- 05:00 PM	1													TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Intersection Turning Movement Count City: Cool City: Cool City: Cool

NS/EW Streets:		ates Postal wy Access		ates Postal wy Access	Norths	side Dr	Norths	ide Dr	
PM		H LEG		H LEG		LEG	WEST		
FIVI	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	O	0	0	O	O	0	0	Ο
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	Ο
4:45 PM	0	0	0	0	0	0	0	0	Ο
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	O	Ο
5:30 PM	0	0	0	0	0	0	0	0	Ο
5:45 PM	0	0	О	Ο	0	0	0	O	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES : APPROACH %'s :	0	0	0	0	0	0	0	0	0
PEAK HR :	04:00 PM	- 05:00 PM	0.4100 1966						TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

SR 49 & Kirkson Realty / Timberline Commercial Dwy

Peak Hour Turning Movement Count



Intersection Turning Movement Count Location: SR 49 & Kirkson Realty / Timberline Commercial Dwy City Cool

Location: SR 49 & Kirkson Realty / Timberline Commercial Dwy

City: Cool

Control: No Control

Date: 6/12/2019

								To	tal								
NS/EW Streets:		SR -	<i>1</i> Q			SR 4	19		Kirkson R	ealty / Tim	berline Con	nmercial	Kirkson F	Realty / Tin	nberline Co	mmercial	
NS/EW Streets.		510	7 /			510	+ /			Dw	/y			D۱	Νy		
		NORTH	BOUND			SOUTH	BOUND			EASTE	BOUND			WEST	BOUND		
PM	0	O	O	0	0	O	O	0	0	O	O	0	O	O	O	O	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	9	46	0	0	0	103	9	0	4	0	6	0	0	0	0	0	177
4:15 PM	2	73	0	0	0	103	5	0	2	0	4	0	0	0	0	0	189
4:30 PM	5	71	0	0	0	143	9	0	5	0	6	0	0	0	0	0	239
4:45 PM	5	61	0	0	0	125	9	0	4	0	0	0	0	0	0	0	204
5:00 PM	13	60	0	0	0	133	9	0	8	0	8	0	0	0	0	0	231
5:15 PM	14	61	0	1	0	146	7	0	3	0	11	0	0	O	0	0	243
5:30 PM	9	48	0	0	0	129	2	0	4	0	5	0	0	O	0	0	197
5:45 PM	8	55	0	1	0	122	6	0	2	0	5	0	0	0	0	0	199
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES:	65	475	Ο	2	Ο	1004	56	0	32	0	45	0	0	0	0	0	1679
APPROACH %'s:	11.99%	87.64%	0.00%	0.37%	0.00%	94.72%	5.28%	0.00%	41.56%	0.00%	58.44%	0.00%					
PEAK HR :		04:30 PM -	05:30 PM						05:15 PM								TOTAL
PEAK HR VOL :	37	253	0	1	Ο	547	34	0	20	0	25	0	0	0	0	0	917
PEAK HR FACTOR :	0.661	0.891	0.000	0.250	0.000	0.937	0.944	0.000	0.625	0.000	0.568	0.000	0.000	0.000	0.000	0.000	0.043
		0.9	57			0.94	49			0.7	03						0.943

Intersection Turning Movement Count

Location: SR 49 & Kirkson Realty / Timberline Commercial Dwy **City:** Cool

Control: No Control

Project ID: 19-07230-004 **Date:** 6/12/2019

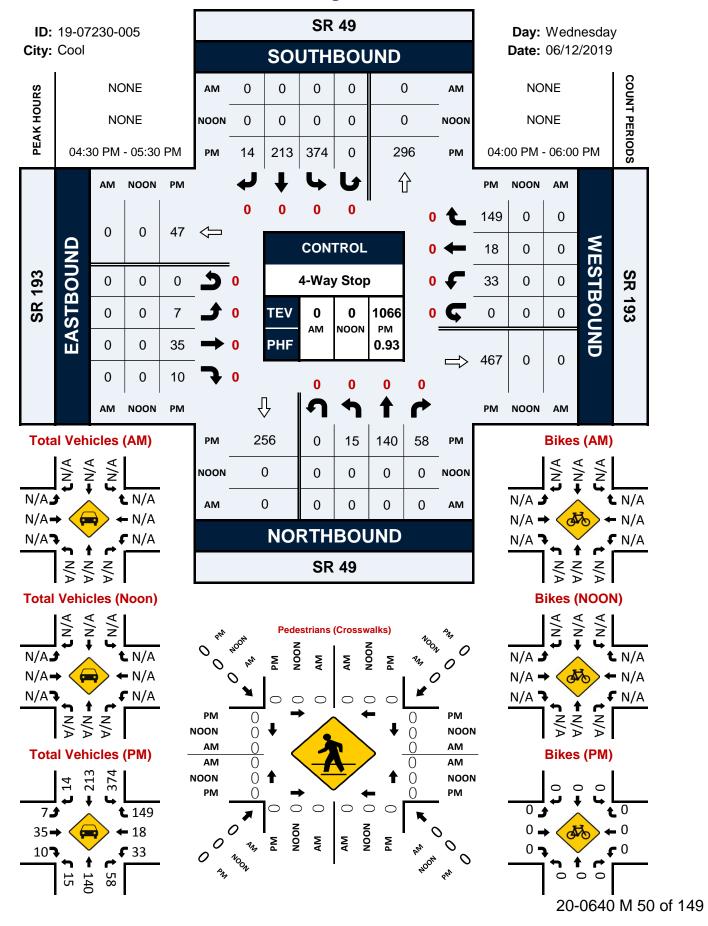
								Bik	ces								
NS/EW Streets:		SR	49			SR	49		Kirkson	Realty / Tir	mberline Co	mmercial	Kirkson	Realty / Tir	mberline Co	mmercial	
No/EW Streets:											Wy				Wy		
		NORTH	IBOUND			SOUTH	BOUND			EAST	BOUND			WEST	ΓBOUND		
PM	0	O	O	0	О	O	O	0	0	O	O	O	0	O	O	O	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	O	0	0	O	0	0	0	O	0	O	0	O	O	0	1
4:15 PM	0	O	O	0	0	O	O	0	0	O	O	O	0	O	O	O	Ο
4:30 PM	0	O	O	0	0	O	0	0	0	O	0	O	0	O	O	0	Ο
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	O	0	0	0	O	0	0	0	0	0	O	0	0	O	0	0
5:15 PM	0	0	0	0	0	1	O	0	0	O	0	O	0	0	O	O	1
5:30 PM	0	O	0	0	0	O	0	0	0	0	0	O	0	0	O	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	FI	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	1	0	0	0	0	0	0	0	\cap	0	0	2
APPROACH %'s:	0.00%	100.00%	0.00%	0.00%	_	100.00%	0.00%	0.00%	O	O	O	O		O	O	O	
PEAK HR :		04:30 PM -	05:30 PM		0/4:00 []//[TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
						0.2											0.250

Location: SR 49 & Kirkson Realty / Timberline Commercial Dwy
City: Cool
Project ID: 19-07230-004
Date: 6/12/2019

_									
NS/EW Streets:	SR	49	SF	R 49		Realty / Commercial		Realty / Commercial	
DNA	NORT	H LEG	SOU	ΓH LEG		Γ LEG		T LEG	
PM	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	O	0	0	0	0	0	0	0
4:30 PM	0	O	0	0	0	0	0	0	0
4:45 PM	0	O	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES : APPROACH %'s :	0	0	Ο	0	0	0	0	0	0
PEAK HR :	04:30 PM	- 05:30 PM							TOTAL
PEAK HR VOL : PEAK HR FACTOR :	0	0	0	0	0	0	0	0	0

SR 49 & SR 193

Peak Hour Turning Movement Count



Intersection Turning Movement Count

 Location: SR 49 & SR 193

 City: Cool
 Project ID: 19-07230-005

 Control: 4-Way Stop
 Date: 6/12/2019

_								То	tal								_
NS/EW Streets:		SR	49			SR -	49			SR 1	193			SR 1	193		
		NORTH	BOUND			SOUTH	BOUND			EASTE	BOUND			WEST	BOUND		
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	21	19	0	70	42	1	0	1	3	2	0	15	3	32	0	212
4:15 PM	4	27	13	0	74	36	1	4	3	5	1	0	10	2	44	0	224
4:30 PM	3	39	15	0	95	49	4	0	1	10	3	0	13	3	40	0	275
4:45 PM	4	34	6	0	87	45	5	0	1	7	2	0	3	6	35	0	235
5:00 PM	6	34	15	0	93	53	3	0	4	9	4	0	9	7	32	0	269
5:15 PM	2	33	22	0	99	66	2	0	1	9	1	0	8	2	42	0	287
5:30 PM	5	28	14	0	92	46	3	0	2	2	6	0	11	4	30	0	243
5:45 PM	4	34	20	0	88	49	2	0	0	6	3	0	11	10	32	0	259
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES:	31	250	124	0	698	386	21	4	13	51	22	0	80	37	287	0	2004
APPROACH %'s:	7.65%	61.73%	30.62%	0.00%	62.94%	34.81%	1.89%	0.36%	15.12%	59.30%	25.58%	0.00%	19.80%	9.16%	71.04%	0.00%	
PEAK HR :		04:30 PM -	05:30 PM														TOTAL
PEAK HR VOL :	15	140	58	0	374	213	14	0	7	35	10	0	33	18	149	0	1066
PEAK HR FACTOR :	0.625	0.897	0.659	0.000	0.944	0.807	0.700	0.000	0.438	0.875	0.625	0.000	0.635	0.643	0.887	0.000	0.000
		0.9	34			0.9	00			0.7	65			0.8	93		0.929

Intersection Turning Movement Count

 Location:
 SR 49 & SR 193

 City:
 Cool

 Control:
 4-Way Stop

Project ID:
 19-07230-005
 Date:
 6/12/2019

_								Bil	ces								_
NS/EW Streets:		SF	R 49			SF	R 49			SR	193			SR	193		
		NORT	HBOUND			SOUT	HBOUND			EAST	BOUND			WEST	TBOUND		
PM	O	O	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	O	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	O	0	0	0	O	0	0	0	O	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	O	0	0	O	O	0	0	0	O	0	0	0	0	0
5:15 PM	0	0	0	O	0	0	0	O	0	0	0	O	0	0	0	0	0
5:30 PM	0	0	O	O	0	0	O	O	0	0	0	O	0	0	O	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES : APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0 0.00%	0 0.00%	1 100.00%	0 0.00%	1
PEAK HR :		04:30 PM	- 05:30 PM	1	04:30 15												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ο	0	0
PEAK HR FACTOR:	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Location: SR 49 & SR 193 **City:** Cool **Project ID:** 19-07230-005 **Date:** 6/12/2019

NS/EW Streets:			SF	2 49	SR	193	SR		
PM	NORT EB	H LEG WB	SOUT EB	TH LEG WB	EAST NB	LEG SB	WES ⁻ NB	T LEG SB	TOTAL
4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:45 PM	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
TOTAL VOLUMES : APPROACH %'s : PEAK HR : PEAK HR VOL : PEAK HR FACTOR :	0	WB 0 - 05:30 PM	EB 0	WB O	NB O	SB O	NB O	SB O	TOTAL 0 TOTAL 0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	₩.	LDIX	NDL	<u>ND1</u>	<u>JD1</u>	JDIK **
Traffic Vol, veh/h	T	2		256	559	2
Future Vol, veh/h	1					
		2	1	256	559	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	135	-	-	100
Veh in Median Storage		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	1	278	608	2
Major/Minor	liner?		laiar1		/oicr2	
	Minor2		Major1		/lajor2	
Conflicting Flow All	888	608	610	0	-	0
Stage 1	608	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	314	496	969	-	-	-
Stage 1	543	_	_	-	_	-
Stage 2	767	_	_	_	_	_
Platoon blocked, %	707			_	_	_
Mov Cap-1 Maneuver	314	496	969			
Mov Cap-1 Maneuver	314	470	707		_	_
	542	-	-	-	-	-
Stage 1		-	-	-	-	-
Stage 2	767	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	13.7		0		0	
HCM LOS	13.7 B		U		U	
HOW LOS	ט					
Minor Lane/Major Mvm	t	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		969	-	416	-	
HCM Lane V/C Ratio		0.001	_	0.008	-	-
HCM Control Delay (s)		8.7	-		_	_
HCM Lane LOS		A	_	В	_	_
HCM 95th %tile Q(veh)		0	_	0	_	_
113W 73W 70W Q(VCH)		- 0		- 0		

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	*/*		\$		ኘ	<u> </u>
Traffic Vol, veh/h	25	7	253	20	5	556
Future Vol, veh/h	25	7	253	20	5	556
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- -	None	-	None	-	None
Storage Length	0	-	_	-	130	-
Veh in Median Storage		_	0	-	-	0
Grade, %	ο, π Ο	_	0	_	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	8	275	22	5	604
Major/Minor I	Minor1	١	Major1	N	Major2	
Conflicting Flow All	900	286	0	0	297	0
Stage 1	286	-	-	-	-	-
Stage 2	614	_	_	_	_	_
Critical Hdwy	6.42	6.22	_	_	4.12	_
Critical Hdwy Stg 1	5.42	- 0.22	_	_	7.12	_
Critical Hdwy Stg 2	5.42	_			_	
Follow-up Hdwy		3.318	-	-	2.218	-
Pot Cap-1 Maneuver	309	753	_	-	1264	
•	763			-		
Stage 1		-	-	-	-	-
Stage 2	540	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	308	753	-	-	1264	-
Mov Cap-2 Maneuver	308	-	-	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Annroach	WB		NB		SB	
Approach						
HCM Control Delay, s	16.3		0		0.1	
HCM LOS	С					
Minor Lane/Major Mvm	nt	NBT	NBRV	WBLn1	SBL	SBT
Capacity (veh/h)		-		354	1264	-
HCM Lane V/C Ratio			_	0.098		-
HCM Control Delay (s)		-		16.3	7.9	
HCM Lane LOS		•	-	10.3 C	7.9 A	-
		-	-		А	-
HCM 95th %tile Q(veh)	١			0.3	0	-

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
	FBL	EBK	NBL			SDK
Lane Configurations Traffic Vol., veh/h		25	1 38	↑ 253	♣ 547	34
Future Vol, veh/h	20 20	25 25	38	253	547	34
·	0	0	0	253	0	0
Conflicting Peds, #/hr Sign Control		Stop	Free	Free	Free	Free
RT Channelized	Stop	None		None		None
	0	None -	150		-	
Storage Length				-	-	-
Veh in Median Storage	e, # 1 0	-	-	0	0	-
Grade, %		-	-	0	0	- 00
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	27	41	275	595	37
Major/Minor I	Minor2		Major1	<u> </u>	Major2	
Conflicting Flow All	971	614	632	0	-	0
Stage 1	614	-	-	-	-	-
Stage 2	357	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	_	-
Critical Hdwy Stg 1	5.42	-	_	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	280	492	951	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	708	-	-	-	-	-
Platoon blocked, %	, 00			_	-	_
Mov Cap-1 Maneuver	268	492	951	_	_	_
Mov Cap-2 Maneuver	390	- 1/2	- ,01	_	_	_
Stage 1	517	_	_	_	_	_
Stage 2	708		_	_	_	_
Jugo 2	700					
Approach	EB		NB		SB	
HCM Control Delay, s	14.2		1.2		0	
HCM LOS	В					
Minor Lane/Major Mvm	nt	NBL	NIDT	EBLn1	SBT	SBR
IVIII OI Lane/IVIAJOI IVIVII	IC					
Canacity (yah/h)		951	-		-	-
Capacity (veh/h)		0.042				-
HCM Lane V/C Ratio		0.043		0.111		
HCM Lane V/C Ratio HCM Control Delay (s))	9	-	14.2	-	-
HCM Lane V/C Ratio						

Intersection												
Intersection Delay, s/veh	17.7											
Intersection LOS	С											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्स	7	ሻ	†	7	*	†	7
Traffic Vol, veh/h	7	35	10	33	18	149	15	140	58	374	213	14
Future Vol, veh/h	7	35	10	33	18	149	15	140	58	374	213	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	38	11	36	20	162	16	152	63	407	232	15
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			1			3			3		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	3			3			1			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	3			3			2			1		
HCM Control Delay	11.5			11.9			12			22.1		
HCM LOS	В			В			В			С		
Lane		NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3		
Lane Vol Left, %		NBLn1 100%	NBLn2	NBLn3	EBLn1 13%	WBLn1 65%	WBLn2	SBLn1 100%	SBLn2	SBLn3		
Vol Left, %		100%	0%	0%	13%	65%	0%	100%	0%	0%		
Vol Left, % Vol Thru, %		100% 0%	0% 100%	0% 0%	13% 67%	65% 35%	0% 0%	100% 0%	0% 100%	0% 0%		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane		100% 0% 0% Stop 15	0% 100% 0%	0% 0% 100%	13% 67% 19%	65% 35% 0%	0% 0% 100%	100% 0% 0%	0% 100% 0%	0% 0% 100%		
Vol Left, % Vol Thru, % Vol Right, % Sign Control		100% 0% 0% Stop	0% 100% 0% Stop 140	0% 0% 100% Stop	13% 67% 19% Stop 52	65% 35% 0% Stop 51 33	0% 0% 100% Stop	100% 0% 0% Stop	0% 100% 0% Stop 213	0% 0% 100% Stop 14		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol		100% 0% 0% Stop 15 15	0% 100% 0% Stop 140 0	0% 0% 100% Stop 58 0	13% 67% 19% Stop 52 7 35	65% 35% 0% Stop 51 33	0% 0% 100% Stop 149 0	100% 0% 0% Stop 374 374	0% 100% 0% Stop 213 0 213	0% 0% 100% Stop 14 0		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol		100% 0% 0% Stop 15 15 0	0% 100% 0% Stop 140 0 140	0% 0% 100% Stop 58 0 0	13% 67% 19% Stop 52 7 35	65% 35% 0% Stop 51 33 18	0% 0% 100% Stop 149 0 0	100% 0% 0% Stop 374 374 0	0% 100% 0% Stop 213 0 213	0% 0% 100% Stop 14 0 0		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate		100% 0% 0% Stop 15 15 0 0	0% 100% 0% Stop 140 0 140	0% 0% 100% Stop 58 0 0 58 63	13% 67% 19% Stop 52 7 35 10	65% 35% 0% Stop 51 33 18 0	0% 0% 100% Stop 149 0 0 149 162	100% 0% 0% Stop 374 374 0 0	0% 100% 0% Stop 213 0 213 0 232	0% 0% 100% Stop 14 0 0		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp		100% 0% 0% Stop 15 15 0 0	0% 100% 0% Stop 140 0 140 0 152	0% 0% 100% Stop 58 0 0 58 63	13% 67% 19% Stop 52 7 35 10	65% 35% 0% Stop 51 33 18 0 55	0% 0% 100% Stop 149 0 0 149 162	100% 0% 0% Stop 374 374 0 0	0% 100% 0% Stop 213 0 213 0 232	0% 0% 100% Stop 14 0 0 14 15		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X)		100% 0% 0% Stop 15 15 0 0 16 8	0% 100% 0% Stop 140 0 140 0 152 8 0.3	0% 0% 100% Stop 58 0 0 58 63 8 0.112	13% 67% 19% Stop 52 7 35 10 57 8	65% 35% 0% Stop 51 33 18 0 55 8	0% 0% 100% Stop 149 0 0 149 162 8 0.296	100% 0% 0% Stop 374 374 0 0 407 8 0.759	0% 100% 0% Stop 213 0 213 0 232 8 0.399	0% 0% 100% Stop 14 0 0 14 15 8		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd)		100% 0% 0% Stop 15 15 0 0 16 8 0.034 7.608	0% 100% 0% Stop 140 0 140 0 152 8 0.3 7.099	0% 0% 100% Stop 58 0 0 58 63 8 0.112 6.387	13% 67% 19% Stop 52 7 35 10 57 8 0.122 7.74	65% 35% 0% Stop 51 33 18 0 55 8 0.117 7.601	0% 0% 100% Stop 149 0 0 149 162 8 0.296 6.573	100% 0% 0% Stop 374 374 0 0 407 8 0.759 6.718	0% 100% 0% Stop 213 0 213 0 232 8 0.399 6.211	0% 0% 100% Stop 14 0 0 14 15 8 0.023 5.501		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N		100% 0% 0% Stop 15 15 0 0 16 8 0.034 7.608 Yes	0% 100% 0% Stop 140 0 140 0 152 8 0.3 7.099 Yes	0% 0% 100% Stop 58 0 0 58 63 8 0.112 6.387 Yes	13% 67% 19% Stop 52 7 35 10 57 8 0.122 7.74 Yes	65% 35% 0% Stop 51 33 18 0 55 8 0.117 7.601 Yes	0% 0% 100% Stop 149 0 0 149 162 8 0.296 6.573 Yes	100% 0% 0% Stop 374 374 0 0 407 8 0.759 6.718 Yes	0% 100% 0% Stop 213 0 213 0 232 8 0.399 6.211 Yes	0% 0% 100% Stop 14 0 0 14 15 8 0.023 5.501 Yes		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap		100% 0% 0% Stop 15 15 0 0 16 8 0.034 7.608 Yes 468	0% 100% 0% Stop 140 0 140 0 152 8 0.3 7.099 Yes 502	0% 0% 100% Stop 58 0 0 58 63 8 0.112 6.387 Yes 556	13% 67% 19% Stop 52 7 35 10 57 8 0.122 7.74 Yes 466	65% 35% 0% Stop 51 33 18 0 55 8 0.117 7.601 Yes 468	0% 0% 100% Stop 149 0 0 149 162 8 0.296 6.573 Yes 543	100% 0% 0% Stop 374 374 0 0 407 8 0.759 6.718 Yes 537	0% 100% 0% Stop 213 0 213 0 232 8 0.399 6.211 Yes 576	0% 0% 100% Stop 14 0 0 14 15 8 0.023 5.501 Yes 646		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time		100% 0% 0% Stop 15 15 0 0 16 8 0.034 7.608 Yes 468 5.404	0% 100% 0% Stop 140 0 140 0 152 8 0.3 7.099 Yes 502 4.895	0% 0% 100% Stop 58 0 0 58 63 8 0.112 6.387 Yes 556 4.182	13% 67% 19% Stop 52 7 35 10 57 8 0.122 7.74 Yes 466 5.44	65% 35% 0% Stop 51 33 18 0 55 8 0.117 7.601 Yes 468 5.395	0% 0% 100% Stop 149 0 0 149 162 8 0.296 6.573 Yes 543 4.367	100% 0% 0% Stop 374 374 0 0 407 8 0.759 6.718 Yes 537 4.489	0% 100% 0% Stop 213 0 213 0 232 8 0.399 6.211 Yes 576 3.981	0% 0% 100% Stop 14 0 0 14 15 8 0.023 5.501 Yes 646 3.271		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio		100% 0% 0% Stop 15 15 0 0 16 8 0.034 7.608 Yes 468 5.404 0.034	0% 100% 0% Stop 140 0 140 0 152 8 0.3 7.099 Yes 502 4.895 0.303	0% 0% 100% Stop 58 0 0 58 63 8 0.112 6.387 Yes 556 4.182 0.113	13% 67% 19% Stop 52 7 35 10 57 8 0.122 7.74 Yes 466 5.44 0.122	65% 35% 0% Stop 51 33 18 0 55 8 0.117 7.601 Yes 468 5.395 0.118	0% 0% 100% Stop 149 0 0 149 162 8 0.296 6.573 Yes 543 4.367 0.298	100% 0% 0% Stop 374 374 0 0 407 8 0.759 6.718 Yes 537 4.489 0.758	0% 100% 0% Stop 213 0 213 0 232 8 0.399 6.211 Yes 576 3.981 0.403	0% 0% 100% Stop 14 0 0 14 15 8 0.023 5.501 Yes 646 3.271 0.023		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio HCM Control Delay		100% 0% 0% Stop 15 15 0 0 16 8 0.034 7.608 Yes 468 5.404 0.034 10.7	0% 100% 0% Stop 140 0 140 0 152 8 0.3 7.099 Yes 502 4.895 0.303 12.9	0% 0% 100% Stop 58 0 0 58 63 8 0.112 6.387 Yes 556 4.182 0.113 10	13% 67% 19% Stop 52 7 35 10 57 8 0.122 7.74 Yes 466 5.44 0.122 11.5	65% 35% 0% Stop 51 33 18 0 55 8 0.117 7.601 Yes 468 5.395 0.118 11.4	0% 0% 100% Stop 149 0 0 149 162 8 0.296 6.573 Yes 543 4.367 0.298 12.1	100% 0% 0% Stop 374 374 0 0 407 8 0.759 6.718 Yes 537 4.489 0.758 27.8	0% 100% 0% Stop 213 0 213 0 232 8 0.399 6.211 Yes 576 3.981 0.403 13.1	0% 0% 100% Stop 14 0 0 14 15 8 0.023 5.501 Yes 646 3.271 0.023 8.4		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio		100% 0% 0% Stop 15 15 0 0 16 8 0.034 7.608 Yes 468 5.404 0.034	0% 100% 0% Stop 140 0 140 0 152 8 0.3 7.099 Yes 502 4.895 0.303	0% 0% 100% Stop 58 0 0 58 63 8 0.112 6.387 Yes 556 4.182 0.113	13% 67% 19% Stop 52 7 35 10 57 8 0.122 7.74 Yes 466 5.44 0.122	65% 35% 0% Stop 51 33 18 0 55 8 0.117 7.601 Yes 468 5.395 0.118	0% 0% 100% Stop 149 0 0 149 162 8 0.296 6.573 Yes 543 4.367 0.298	100% 0% 0% Stop 374 374 0 0 407 8 0.759 6.718 Yes 537 4.489 0.758	0% 100% 0% Stop 213 0 213 0 232 8 0.399 6.211 Yes 576 3.981 0.403	0% 0% 100% Stop 14 0 0 14 15 8 0.023 5.501 Yes 646 3.271 0.023		

Intersection						
Int Delay, s/veh	7.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	LDL	4	₩ <u>₽</u>	אטוע	₩.	UDIN
Traffic Vol, veh/h	35	. 4	2	0	0	40
Future Vol, veh/h	35	1	2	0	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	- -	None
Storage Length	_	-	_	-	0	-
Veh in Median Storage		0	0	_	0	_
Grade, %	-	0	0	_	0	_
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	1	3	0	0	51
IVIVIIIL I IUW	43	I	J	U	U	31
Major/Minor	Major1	N	Major2	N	Minor2	
Conflicting Flow All	3	0	-	0	94	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	91	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1619	-	-	-	906	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	933	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1619	-	-	_	881	1081
Mov Cap-2 Maneuver		_		_	881	-
Stage 1	_	_	_	_	991	_
Stage 2	_	_	_	_	933	_
olugo 2					700	
Approach	EB		WB		SB	
HCM Control Delay, s	7.1		0		8.5	
HCM LOS					Α	
Minor Lang/Major Mur	nt	EDI	EDT	MDT	WPD	CDI n1
Minor Lane/Major Mvr	III	EBL	EBT	WBT	WBR :	
Capacity (veh/h)		1619	-	-	-	1081
HCM Lane V/C Ratio		0.028	-	-		0.047
HCM Control Delay (s HCM Lane LOS)	7.3	0	-	-	8.5
HUMLIANO LOS		Α	Α	-	-	Α
HCM 95th %tile Q(veh	. \	0.1	_		_	0.1

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	LDIN	NDL	<u>ND1</u>	<u> </u>	3DK
Traffic Vol, veh/h	1	2	1	258	561	2
Future Vol, veh/h	1	2	1	258	561	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	135	-	-	100
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	1	280	610	2
Major/Minor	Minor2	1	Major1	N	/lajor2	
Conflicting Flow All	892	610	612	0	-	0
Stage 1	610	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	312	494	967	-	-	-
Stage 1	542	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	494	967	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	13.8		0		0	
HCM LOS	В		U		U	
	U					
NA:		ND	NOT	EDI 4	CDT	CDD
Minor Lane/Major Mvm	11	NBL		EBLn1	SBT	SBR
Capacity (veh/h)		967	-		-	-
HCM Lane V/C Ratio		0.001		0.008	-	-
HCM Control Delay (s)		8.7	-		-	-
HCM Lane LOS		Α	-	В	-	-
HCM 95th %tile Q(veh	١	0	_	0	_	_

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	₩.	אטויי	1\D1	אטוז	JDL	<u> </u>
Traffic Vol, veh/h	50	12	250	43	14	549
Future Vol, veh/h	50	12	250	43	14	549
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	130	-
Veh in Median Storage	, # 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	13	272	47	15	597
Major/Minor N	Minor1	Λ	/lajor1	1	Major2	
Conflicting Flow All	923	296	0	0	319	0
Stage 1	296	270	-	-	J17 -	-
Stage 2	627	_	_	_	_	_
Critical Hdwy	6.42	6.22	_	_	4.12	_
Critical Hdwy Stg 1	5.42	-	_	_	-	_
Critical Hdwy Stg 2	5.42		-	-	-	
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	299	743	_	_	1241	-
Stage 1	755	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	295	743	-	-	1241	-
Mov Cap-2 Maneuver	295	-	-	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Ü						
Annroach	WB		NB		SB	
Approach	WD				0.2	
LICM Control Dolovi o	10 F				U.Z	
HCM Control Delay, s	18.5		0		0.2	
HCM Control Delay, s HCM LOS	18.5 C		U		0.2	
HCM LOS	С					
	С	NBT		VBLn1	SBL	SBT
Minor Lane/Major Mvm Capacity (veh/h)	С	NBT -	NBRV -	334	SBL 1241	SBT -
Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio	C		NBRV -	334 0.202	SBL 1241 0.012	
Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)	C		NBRV -	334 0.202 18.5	SBL 1241 0.012 7.9	-
Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio	C ut	-	NBRV - -	334 0.202	SBL 1241 0.012	-

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Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		ሻ	†	1	02.1
Traffic Vol, veh/h	22	25	38	271	563	36
Future Vol, veh/h	22	25	38	271	563	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- -	None	-	None	-	None
Storage Length	0	-	150	-	_	-
Veh in Median Storage		_	-	0	0	_
Grade, %	0	_	_	0	0	_
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	27	41	295	612	39
IVIVIIIL I IUW	24	21	41	270	UIZ	37
Major/Minor	Minor2	1	Major1	١	/lajor2	
Conflicting Flow All	1009	632	651	0	-	0
Stage 1	632	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	_	-
Critical Hdwy Stg 2	5.42	-	-	-	-	_
Follow-up Hdwy	3.518	3.318	2.218	_	-	-
Pot Cap-1 Maneuver	266	480	935	-	_	-
Stage 1	530	-	-	_	_	_
Stage 2	694	-	-	-	-	-
Platoon blocked, %	371			_	_	_
Mov Cap-1 Maneuver	254	480	935	_	_	_
Mov Cap-1 Maneuver	378	400	733			
Stage 1	507		-	_	_	
<u> </u>	694	-	-	•	-	-
Stage 2	094	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	14.6		1.1		0	
HCM LOS	В					
1.0101 200	J					
Minor Lane/Major Mvn	nt	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		935	-		-	-
HCM Lane V/C Ratio		0.044	-	0.12	-	-
HCM Control Delay (s)		9	-	14.6	-	-
HCM Lane LOS		Α	-	В	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Intersection												
Intersection Delay, s/veh	18.8											
Intersection LOS	С											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			ર્ન	7	ሻ	1	7	ሻ	1	7
Traffic Vol, veh/h	7	35	10	33	18	158	15	149	58	382	221	14
Future Vol, veh/h	7	35	10	33	18	158	15	149	58	382	221	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	38	11	36	20	172	16	162	63	415	240	15
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			1			3			3		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	3			3			1			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	3			3			2			1		
HCM Control Delay	11.7			12.4			12.5			23.8		
HCM LOS												
HOW LOS	В			В			В			С		
LICIVI LOS	В			В			В			C		
Lane	В	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3		
Lane Vol Left, %	В	100%	0%	NBLn3	13%	65%	WBLn2 0%	100%	0%	SBLn3		
Lane Vol Left, % Vol Thru, %	В	100% 0%	0% 100%	NBLn3 0% 0%	13% 67%	65% 35%	WBLn2 0% 0%	100% 0%	0% 100%	SBLn3 0% 0%		
Lane Vol Left, % Vol Thru, % Vol Right, %	В	100% 0% 0%	0% 100% 0%	NBLn3 0% 0% 100%	13% 67% 19%	65% 35% 0%	WBLn2 0% 0% 100%	100% 0% 0%	0% 100% 0%	SBLn3 0% 0% 100%		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control	В	100% 0% 0% Stop	0% 100% 0% Stop	NBLn3 0% 0% 100% Stop	13% 67% 19% Stop	65% 35% 0% Stop	WBLn2 0% 0% 100% Stop	100% 0% 0% Stop	0% 100% 0% Stop	SBLn3 0% 0% 100% Stop		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane	В	100% 0% 0% Stop 15	0% 100% 0% Stop 149	NBLn3 0% 0% 100% Stop 58	13% 67% 19% Stop 52	65% 35% 0% Stop 51	WBLn2 0% 0% 100% Stop 158	100% 0% 0% Stop 382	0% 100% 0% Stop 221	SBLn3 0% 0% 100% Stop 14		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol	В	100% 0% 0% Stop 15	0% 100% 0% Stop 149	NBLn3 0% 0% 100% Stop 58 0	13% 67% 19% Stop 52	65% 35% 0% Stop 51 33	WBLn2 0% 0% 100% Stop 158 0	100% 0% 0% Stop 382 382	0% 100% 0% Stop 221	SBLn3 0% 0% 100% Stop 14 0		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol	В	100% 0% 0% Stop 15 15	0% 100% 0% Stop 149 0	NBLn3 0% 0% 100% Stop 58 0 0	13% 67% 19% Stop 52 7 35	65% 35% 0% Stop 51 33 18	WBLn2 0% 0% 100% Stop 158 0 0	100% 0% 0% Stop 382 382 0	0% 100% 0% Stop 221 0	SBLn3 0% 0% 100% Stop 14 0 0		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol	В	100% 0% 0% Stop 15 15 0	0% 100% 0% Stop 149 0 149	NBLn3 0% 0% 100% Stop 58 0 0 58	13% 67% 19% Stop 52 7 35	65% 35% 0% Stop 51 33 18	WBLn2 0% 0% 100% Stop 158 0 0 158	100% 0% 0% Stop 382 382 0	0% 100% 0% Stop 221 0 221	SBLn3 0% 0% 100% Stop 14 0 0 14		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate	В	100% 0% 0% Stop 15 15 0 0	0% 100% 0% Stop 149 0 149 0	NBLn3 0% 0% 100% Stop 58 0 0 58 63	13% 67% 19% Stop 52 7 35 10	65% 35% 0% Stop 51 33 18 0	WBLn2 0% 0% 100% Stop 158 0 0 158 172	100% 0% 0% Stop 382 382 0 0	0% 100% 0% Stop 221 0 221 0 240	SBLn3 0% 0% 100% Stop 14 0 0 14 15		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp	В	100% 0% 0% Stop 15 15 0 0	0% 100% 0% Stop 149 0 149 0	NBLn3 0% 0% 100% Stop 58 0 0 58 63	13% 67% 19% Stop 52 7 35 10	65% 35% 0% Stop 51 33 18 0 55	WBLn2 0% 0% 100% Stop 158 0 0 158 172 8	100% 0% 0% Stop 382 382 0 0 415	0% 100% 0% Stop 221 0 221 0 240	SBLn3 0% 0% 100% Stop 14 0 0 14 15 8		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X)	В	100% 0% 0% Stop 15 15 0 0 16 8	0% 100% 0% Stop 149 0 149 0 162 8 0.328	NBLn3 0% 0% 100% Stop 58 0 0 58 63 8 0.115	13% 67% 19% Stop 52 7 35 10 57 8	65% 35% 0% Stop 51 33 18 0 55 8	WBLn2 0% 0% 100% Stop 158 0 158 172 8 0.323	100% 0% 0% Stop 382 382 0 0 415 8	0% 100% 0% Stop 221 0 221 240 8 0.42	SBLn3 0% 0% 100% Stop 14 0 0 14 5 8 0.024		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd)	В	100% 0% 0% Stop 15 15 0 0 16 8 0.035 7.802	0% 100% 0% Stop 149 0 149 0 162 8 0.328 7.292	NBLn3 0% 0% 100% Stop 58 0 0 58 63 8 0.115 6.579	13% 67% 19% Stop 52 7 35 10 57 8 0.124 7.874	65% 35% 0% Stop 51 33 18 0 55 8 0.12 7.791	WBLn2 0% 100% Stop 158 0 158 172 8 0.323 6.775	100% 0% 0% Stop 382 382 0 0 415 8 0.784 6.898	0% 100% 0% Stop 221 0 221 0 240 8 0.42 6.39	SBLn3 0% 0% 100% Stop 14 0 0 14 15 8 0.024 5.679		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N	В	100% 0% 0% Stop 15 15 0 0 16 8 0.035 7.802 Yes	0% 100% 0% Stop 149 0 149 0 162 8 0.328 7.292 Yes	NBLn3 0% 0% 100% Stop 58 0 0 58 63 8 0.115 6.579 Yes	13% 67% 19% Stop 52 7 35 10 57 8 0.124 7.874 Yes	65% 35% 0% Stop 51 33 18 0 55 8 0.12 7.791 Yes	WBLn2 0% 0% 100% Stop 158 0 0 158 172 8 0.323 6.775 Yes	100% 0% 0% Stop 382 382 0 0 415 8 0.784 6.898 Yes	0% 100% 0% Stop 221 0 221 0 240 8 0.42 6.39 Yes	SBLn3 0% 0% 100% Stop 14 0 0 14 15 8 0.024 5.679 Yes		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap	В	100% 0% 0% Stop 15 15 0 0 16 8 0.035 7.802 Yes 461	0% 100% 0% Stop 149 0 149 0 162 8 0.328 7.292 Yes 496	NBLn3 0% 0% 100% Stop 58 0 0 58 63 8 0.115 6.579 Yes 547	13% 67% 19% Stop 52 7 35 10 57 8 0.124 7.874 Yes 457	65% 35% 0% Stop 51 33 18 0 55 8 0.12 7.791 Yes 462	WBLn2 0% 0% 100% Stop 158 0 0 158 172 8 0.323 6.775 Yes 534	100% 0% 0% Stop 382 382 0 0 415 8 0.784 6.898 Yes 527	0% 100% 0% Stop 221 0 221 0 240 8 0.42 6.39 Yes 567	SBLn3 0% 0% 100% Stop 14 0 0 14 15 8 0.024 5.679 Yes 634		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time	В	100% 0% 0% Stop 15 15 0 0 16 8 0.035 7.802 Yes 461 5.52	0% 100% 0% Stop 149 0 149 0 162 8 0.328 7.292 Yes 496 5.01	NBLn3 0% 0% 100% Stop 58 0 0 58 63 8 0.115 6.579 Yes 547 4.297	13% 67% 19% Stop 52 7 35 10 57 8 0.124 7.874 Yes 457 5.595	65% 35% 0% Stop 51 33 18 0 55 8 0.12 7.791 Yes 462 5.504	WBLn2 0% 0% 100% Stop 158 0 0 158 172 8 0.323 6.775 Yes 534 4.475	100% 0% 0% Stop 382 382 0 0 415 8 0.784 6.898 Yes 527 4.598	0% 100% 0% Stop 221 0 221 0 240 8 0.42 6.39 Yes 567 4.09	SBLn3 0% 0% 100% Stop 14 0 0 14 15 8 0.024 5.679 Yes 634 3.379		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio	В	100% 0% 0% Stop 15 15 0 0 16 8 0.035 7.802 Yes 461 5.52 0.035	0% 100% 0% Stop 149 0 149 0 162 8 0.328 7.292 Yes 496 5.01 0.327	NBLn3 0% 0% 100% Stop 58 0 0 58 63 8 0.115 6.579 Yes 547 4.297 0.115	13% 67% 19% Stop 52 7 35 10 57 8 0.124 7.874 Yes 457 5.595 0.125	65% 35% 0% Stop 51 33 18 0 55 8 0.12 7.791 Yes 462 5.504 0.119	WBLn2 0% 0% 100% Stop 158 0 0 158 172 8 0.323 6.775 Yes 534 4.475 0.322	100% 0% 0% Stop 382 382 0 0 415 8 0.784 6.898 Yes 527 4.598 0.787	0% 100% 0% Stop 221 0 221 0 240 8 0.42 6.39 Yes 567 4.09 0.423	SBLn3 0% 0% 100% Stop 14 0 0 14 15 8 0.024 5.679 Yes 634 3.379 0.024		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio HCM Control Delay	В	100% 0% 0% Stop 15 15 0 0 16 8 0.035 7.802 Yes 461 5.52 0.035 10.8	0% 100% 0% Stop 149 0 149 0 162 8 0.328 7.292 Yes 496 5.01 0.327 13.5	NBLn3 0% 0% 100% Stop 58 0 0 58 63 8 0.115 6.579 Yes 547 4.297 0.115 10.2	13% 67% 19% Stop 52 7 35 10 57 8 0.124 7.874 Yes 457 5.595 0.125 11.7	65% 35% 0% Stop 51 33 18 0 55 8 0.12 7.791 Yes 462 5.504 0.119 11.6	WBLn2 0% 0% 100% Stop 158 0 0 158 172 8 0.323 6.775 Yes 534 4.475 0.322 12.7	100% 0% 0% Stop 382 382 0 0 415 8 0.784 6.898 Yes 527 4.598 0.787 30.2	0% 100% 0% Stop 221 0 221 0 240 8 0.42 6.39 Yes 567 4.09 0.423 13.6	SBLn3 0% 0% 100% Stop 14 0 0 14 15 8 0.024 5.679 Yes 634 3.379 0.024 8.5		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio	В	100% 0% 0% Stop 15 15 0 0 16 8 0.035 7.802 Yes 461 5.52 0.035	0% 100% 0% Stop 149 0 149 0 162 8 0.328 7.292 Yes 496 5.01 0.327	NBLn3 0% 0% 100% Stop 58 0 0 58 63 8 0.115 6.579 Yes 547 4.297 0.115	13% 67% 19% Stop 52 7 35 10 57 8 0.124 7.874 Yes 457 5.595 0.125	65% 35% 0% Stop 51 33 18 0 55 8 0.12 7.791 Yes 462 5.504 0.119	WBLn2 0% 0% 100% Stop 158 0 0 158 172 8 0.323 6.775 Yes 534 4.475 0.322	100% 0% 0% Stop 382 382 0 0 415 8 0.784 6.898 Yes 527 4.598 0.787	0% 100% 0% Stop 221 0 221 0 240 8 0.42 6.39 Yes 567 4.09 0.423	SBLn3 0% 0% 100% Stop 14 0 0 14 15 8 0.024 5.679 Yes 634 3.379 0.024		

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	\$		Y	JJK
Traffic Vol, veh/h	35	33	32	0	0	40
Future Vol, veh/h	35	33	32	0	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	.,# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	42	41	0	0	51
Major/Minor N	Major1	N	Major2	N	Minor2	
Conflicting Flow All	<u>41</u>	0	viajui z -	0	173	41
Stage 1	41	-	-	-	41	41
Stage 1 Stage 2	-	-	-	-	132	-
Stage 2 Critical Hdwy	4.12	-	-	-	6.42	6.22
	4.12	-	-	-	5.42	0.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	2.218	-				3.318
Follow-up Hdwy		-	-	-	3.518	
Pot Cap-1 Maneuver	1568	-	-	-	817	1030
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	894	-
Platoon blocked, %	15/0	-	-	-	702	1020
Mov Cap-1 Maneuver	1568	-	-	-	793	1030
Mov Cap-2 Maneuver	-	-	-	-	793	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	894	-
Approach	EB		WB		SB	
HCM Control Delay, s	3.8		0		8.7	
HCM LOS	2.3				Α	
					,,	
Minor Law (N. 1.		EDI	EDT	MIDT	MDD	CDL 4
Minor Lane/Major Mvm	IL	EBL	EBT	WBT	WBR:	
Capacity (veh/h)		1568	-	-		1030
HCM Control Dalay (a)		0.029	-	-	-	0.05
HCM Long LOS		7.4	0	-	-	8.7
HCM CEth (/tile O(vob)		A	Α	-	-	A
HCM 95th %tile Q(veh)	l	0.1	-	-	-	0.2

Intersection						
Int Delay, s/veh	4.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	₽			4	¥	
Traffic Vol, veh/h	0	32	0	2	30	0
Future Vol, veh/h	0	32	0	2	30	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	_	-	-	-	0	-
Veh in Median Storage,	# 0	_	_	0	0	_
Grade, %	0	_	_	0	0	_
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	0	2	33	0
IVIVIII I IOW	- 0	- 55			- 33	
	lajor1		Major2		Minor1	
Conflicting Flow All	0	0	35	0	20	18
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	2	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1576	-	997	1061
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	1021	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	_	-	1576	_	997	1061
Mov Cap-2 Maneuver	_	_	-	_	997	-
Stage 1	_	_	_	_	1005	_
Stage 2	_		_	_	1003	_
Jiago Z					1021	
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.7	
HCM LOS					Α	
Minor Long/Major Must		IDI n1	EDT	EDD	MDI	MDT
Minor Lane/Major Mvmt	1	VBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		997	-		1576	-
HCM Lane V/C Ratio		0.033	-	-	-	-
HCM Control Delay (s)		8.7	-	-	0	-
HCM Lane LOS		Α	-	-	A	-
HCM 95th %tile Q(veh)		0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥		ሻ	<u></u>	<u> </u>	7
Traffic Vol, veh/h	15	30	15	370	665	25
Future Vol, veh/h	15	30	15	370	665	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- -	None	-	None	-	None
Storage Length	0	-	135	-	_	100
Veh in Median Storage		_	-	0	0	-
Grade, %	0	_	_	0	0	_
Peak Hour Factor	92	92	92	92	92	92
	2	2	2	2	2	2
Heavy Vehicles, %	16	33	16			27
Mvmt Flow	16	33	16	402	723	21
Major/Minor I	Minor2	1	Major1	Λ	/lajor2	
Conflicting Flow All	1157	723	750	0		0
Stage 1	723	_	_	_	-	_
Stage 2	434	-	_	_	_	_
Critical Hdwy	6.42	6.22	4.12	_	_	_
Critical Hdwy Stg 1	5.42	-		_	_	_
Critical Hdwy Stg 2	5.42	_	_	_	_	_
Follow-up Hdwy	3.518	3.318	2.218	_	_	_
Pot Cap-1 Maneuver	217	426	859	_	_	_
Stage 1	481	- 120	-	_	_	_
Stage 2	653	_	_	_	_	_
Platoon blocked, %	033	-	-			
Mov Cap-1 Maneuver	213	426	859	-	-	-
	213	420		-	-	-
Mov Cap-2 Maneuver	472	-	-	-	-	-
Stage 1	653	-	-	-	-	-
		-	-	-	-	-
Stage 2	000					
Stage 2	000					
	EB		NB		SB	
Approach	EB					
Approach HCM Control Delay, s	EB 18.3		NB 0.4		SB 0	
Approach	EB					
Approach HCM Control Delay, s HCM LOS	EB 18.3 C	MDL	0.4		0	000
Approach HCM Control Delay, s HCM LOS Minor Lane/Major Mvm	EB 18.3 C	NBL	0.4	EBLn1		SBR
Approach HCM Control Delay, s HCM LOS Minor Lane/Major Mvm Capacity (veh/h)	EB 18.3 C	859	0.4 NBT I	320	0	SBR -
Approach HCM Control Delay, s HCM LOS Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio	EB 18.3 C	859 0.019	0.4 NBT I	320 0.153	0 SBT	SBR -
Approach HCM Control Delay, s HCM LOS Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)	EB 18.3 C	859 0.019 9.3	0.4 NBT I	320 0.153 18.3	0 SBT	-
Approach HCM Control Delay, s HCM LOS Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio	EB 18.3 C	859 0.019	0.4 NBT I	320 0.153	O SBT -	-

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Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	¥		\$		*	†
Traffic Vol, veh/h	25	10	375	20	5	690
Future Vol, veh/h	25	10	375	20	5	690
Conflicting Peds, #/hr	0	0	0	0	0	070
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	310p	None	-	None	-	None
Storage Length	0	None -	_	NONE -	130	None -
Veh in Median Storage		-	0	-		0
					-	
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	11	408	22	5	750
Major/Minor I	Minor1	N	Major1	N	Major2	
Conflicting Flow All	1179	419	0	0	430	0
Stage 1	419	-	-	-	-	-
Stage 2	760	_	_	_	_	_
Critical Hdwy	6.42	6.22	_	_	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy		3.318	-		2.218	-
Pot Cap-1 Maneuver	211	634	-	-	1129	-
Stage 1	664	-	-	-	-	-
Stage 2	462	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	210	634	-	-	1129	-
Mov Cap-2 Maneuver	210	-	-	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	460	_	_	_	_	_
olago 2	.00					
Approach	WB		NB		SB	
HCM Control Delay, s	21.2		0		0.1	
HCM LOS	С					
Minor Lane/Major Mvm	nt	NBT	NRRV	WBLn1	SBL	SBT
Capacity (veh/h)	10	NDI	NDIN	260	1129	-
HCM Lane V/C Ratio		-	-	0.146		
		-	-	21.2	8.2	-
HCM Long LOS		-	-			-
HCM Lane LOS	١	-	-	С	A	-
HCM 95th %tile Q(veh))	-	-	0.5	0	-

Intersection						
Int Delay, s/veh	1					
		EDD	NBL	NDT	SBT	CDD
Movement Lang Configurations	EBL	EBR		NBT		SBR
Lane Configurations Traffic Vol., veh/h	Y	٦F	<u>ነ</u>	275	}	25
	20	25 25	40	375	680 680	35 35
Future Vol, veh/h			40	375		
Conflicting Peds, #/hr	0	0		0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	150	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	27	43	408	739	38
Major/Minor	Minor2		Major1	1	/lajor2	
Conflicting Flow All	1252	758	777	0	-	0
Stage 1	758	-		-	_	-
Stage 2	494	_	_	_	_	_
Critical Hdwy	6.42	6.22	4.12	_	_	_
Critical Hdwy Stg 1	5.42	- 0.22	-	_	_	
Critical Hdwy Stg 2	5.42	_	_	_	_	_
Follow-up Hdwy	3.518	3.318	2.218	_	_	_
Pot Cap-1 Maneuver	190	407	839			
Stage 1	463	-		_	_	_
Stage 2	613			-	_	
Platoon blocked, %	013	-	-	-	-	-
	100	407	020	-	-	-
Mov Cap-1 Maneuver	180	407	839	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	439	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	16.6		0.9		0	
HCM LOS	С				-	
NA'	. 1	NDI	NDT	EDI1	CDT	CDD
Minor Lane/Major Mvm	nt	NBL	NRI	EBLn1	SBT	SBR
Capacity (veh/h)		839	-	358	-	-
HCM Lane V/C Ratio		0.052	-	0.137	-	-
HCM Control Delay (s)		9.5	-	16.6	-	-
HCM Lane LOS		Α	-	С	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

Interception												
Intersection	20.7											
Intersection Delay, s/veh	30.6											
Intersection LOS	D											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्स	7	ሻ	↑	7	ሻ	↑	7
Traffic Vol, veh/h	10	35	15	40	15	185	20	230	75	420	300	15
Future Vol, veh/h	10	35	15	40	15	185	20	230	75	420	300	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	38	16	43	16	201	22	250	82	457	326	16
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			1			3			3		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	3			3			1			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	3			3			2			1		
HCM Control Delay	13.4			15.2			17.6			42.8		
HCM LOS	В			С			С			Е		
										_		
										_		
Lane		NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3		
		NBLn1 100%	NBLn2		EBLn1 17%	WBLn1 73%		SBLn1 100%	SBLn2			
Lane				NBLn3			WBLn2			SBLn3		
Lane Vol Left, %		100%	0%	NBLn3	17%	73%	WBLn2	100%	0%	SBLn3		
Lane Vol Left, % Vol Thru, %		100% 0%	0% 100%	NBLn3 0% 0%	17% 58%	73% 27%	WBLn2 0% 0%	100% 0%	0% 100%	SBLn3 0% 0%		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane		100% 0% 0% Stop 20	0% 100% 0%	NBLn3 0% 0% 100% Stop 75	17% 58% 25% Stop 60	73% 27% 0% Stop 55	WBLn2 0% 0% 100%	100% 0% 0% Stop 420	0% 100% 0%	SBLn3 0% 0% 100% Stop 15		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol		100% 0% 0% Stop 20	0% 100% 0% Stop 230	NBLn3 0% 0% 100% Stop 75 0	17% 58% 25% Stop 60 10	73% 27% 0% Stop 55 40	WBLn2 0% 0% 100% Stop	100% 0% 0% Stop	0% 100% 0% Stop 300	SBLn3 0% 0% 100% Stop 15 0		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol		100% 0% 0% Stop 20 20	0% 100% 0% Stop 230 0	NBLn3 0% 0% 100% Stop 75 0 0	17% 58% 25% Stop 60 10 35	73% 27% 0% Stop 55 40	WBLn2 0% 0% 100% Stop 185 0	100% 0% 0% Stop 420 420	0% 100% 0% Stop 300 0	SBLn3 0% 0% 100% Stop 15 0 0		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol		100% 0% 0% Stop 20 20 0	0% 100% 0% Stop 230 0 230	NBLn3 0% 0% 100% Stop 75 0 0 75	17% 58% 25% Stop 60 10 35	73% 27% 0% Stop 55 40 15	WBLn2 0% 0% 100% Stop 185 0 0 185	100% 0% 0% Stop 420 420 0	0% 100% 0% Stop 300 0 300	SBLn3 0% 0% 100% Stop 15 0 0 15		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate		100% 0% 0% Stop 20 20 0	0% 100% 0% Stop 230 0 230 0	NBLn3 0% 0% 100% Stop 75 0 0 75 82	17% 58% 25% Stop 60 10 35 15	73% 27% 0% Stop 55 40 15 0	WBLn2 0% 0% 100% Stop 185 0 185 201	100% 0% 0% Stop 420 420 0 0	0% 100% 0% Stop 300 0 300 0	SBLn3 0% 0% 100% Stop 15 0 15 16		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp		100% 0% 0% Stop 20 20 0 0	0% 100% 0% Stop 230 0 230 0 250	NBLn3 0% 0% 100% Stop 75 0 0 75 82 8	17% 58% 25% Stop 60 10 35 15 65	73% 27% 0% Stop 55 40 15 0	WBLn2 0% 0% 100% Stop 185 0 0 185 201	100% 0% 0% Stop 420 420 0 0 457	0% 100% 0% Stop 300 0 300 0 326	SBLn3 0% 0% 100% Stop 15 0 15 16 8		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X)		100% 0% 0% Stop 20 0 0 22 8 0.051	0% 100% 0% Stop 230 0 230 0 250 8 0.553	NBLn3 0% 0% 100% Stop 75 0 75 82 8 0.164	17% 58% 25% Stop 60 10 35 15 65 8 0.161	73% 27% 0% Stop 55 40 15 0 60	WBLn2 0% 0% 100% Stop 185 0 185 201 8 0.425	100% 0% 0% Stop 420 420 0 0 457 8 0.959	0% 100% 0% Stop 300 0 300 0 326 8 0.639	SBLn3 0% 0% 100% Stop 15 0 15 6 16 8 0.029		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd)		100% 0% 0% Stop 20 0 0 22 8 0.051 8.473	0% 100% 0% Stop 230 0 230 0 250 8 0.553 7.961	NBLn3 0% 0% 100% Stop 75 0 0 75 82 8 0.164 7.243	17% 58% 25% Stop 60 10 35 15 65 8 0.161 8.866	73% 27% 0% Stop 55 40 15 0 60 8 0.144 8.686	WBLn2 0% 0% 100% Stop 185 0 0 185 201 8 0.425 7.609	100% 0% 0% Stop 420 420 0 0 457 8 0.959 7.562	0% 100% 0% Stop 300 0 300 0 326 8 0.639 7.051	SBLn3 0% 0% 100% Stop 15 0 0 15 6 8 0.029 6.336		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N		100% 0% 0% Stop 20 0 0 22 8 0.051 8.473 Yes	0% 100% 0% Stop 230 0 230 0 250 8 0.553 7.961 Yes	NBLn3 0% 0% 100% Stop 75 0 75 82 8 0.164 7.243 Yes	17% 58% 25% Stop 60 10 35 15 65 8 0.161 8.866 Yes	73% 27% 0% Stop 55 40 15 0 60 8 0.144 8.686 Yes	WBLn2 0% 0% 100% Stop 185 0 185 201 8 0.425 7.609 Yes	100% 0% 0% Stop 420 420 0 0 457 8 0.959 7.562 Yes	0% 100% 0% Stop 300 0 300 0 326 8 0.639 7.051 Yes	SBLn3 0% 0% 100% Stop 15 0 0 15 16 8 0.029 6.336 Yes		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap		100% 0% 0% Stop 20 0 0 22 8 0.051 8.473 Yes 422	0% 100% 0% Stop 230 0 230 0 250 8 0.553 7.961 Yes 453	NBLn3 0% 100% Stop 75 0 75 82 8 0.164 7.243 Yes 494	17% 58% 25% Stop 60 10 35 15 65 8 0.161 8.866 Yes 404	73% 27% 0% Stop 55 40 15 0 60 8 0.144 8.686 Yes 412	WBLn2 0% 0% 100% Stop 185 0 0 185 201 8 0.425 7.609 Yes 473	100% 0% 0% Stop 420 0 0 457 8 0.959 7.562 Yes 479	0% 100% 0% Stop 300 0 300 0 326 8 0.639 7.051 Yes 512	SBLn3 0% 0% 100% Stop 15 0 0 15 16 8 0.029 6.336 Yes 564		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time		100% 0% 0% Stop 20 0 0 22 8 0.051 8.473 Yes 422 6.235	0% 100% 0% Stop 230 0 230 0 250 8 0.553 7.961 Yes 453 5.722	NBLn3 0% 0% 100% Stop 75 0 75 82 8 0.164 7.243 Yes 494 5.004	17% 58% 25% Stop 60 10 35 15 65 8 0.161 8.866 Yes 404	73% 27% 0% Stop 55 40 15 0 60 8 0.144 8.686 Yes 412 6.449	WBLn2 0% 0% 100% Stop 185 0 0 185 201 8 0.425 7.609 Yes 473 5.371	100% 0% 0% Stop 420 0 0 457 8 0.959 7.562 Yes 479 5.315	0% 100% 0% Stop 300 0 300 0 326 8 0.639 7.051 Yes 512 4.804	SBLn3 0% 0% 100% Stop 15 0 0 15 16 8 0.029 6.336 Yes 564 4.089		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio		100% 0% 0% Stop 20 0 0 22 8 0.051 8.473 Yes 422 6.235 0.052	0% 100% 0% Stop 230 0 230 0 250 8 0.553 7.961 Yes 453 5.722 0.552	NBLn3 0% 0% 100% Stop 75 0 0 75 82 8 0.164 7.243 Yes 494 5.004 0.166	17% 58% 25% Stop 60 10 35 15 65 8 0.161 8.866 Yes 404 6.644 0.161	73% 27% 0% Stop 55 40 15 0 60 8 0.144 8.686 Yes 412 6.449 0.146	WBLn2 0% 0% 100% Stop 185 0 0 185 201 8 0.425 7.609 Yes 473 5.371 0.425	100% 0% 0% Stop 420 0 0 457 8 0.959 7.562 Yes 479 5.315 0.954	0% 100% 0% Stop 300 0 300 0 326 8 0.639 7.051 Yes 512 4.804 0.637	SBLn3 0% 0% 100% Stop 15 0 15 6 8 0.029 6.336 Yes 564 4.089 0.028		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio HCM Control Delay		100% 0% 0% Stop 20 0 0 22 8 0.051 8.473 Yes 422 6.235 0.052 11.7	0% 100% 0% Stop 230 0 230 0 250 8 0.553 7.961 Yes 453 5.722 0.552 20.2	NBLn3 0% 0% 100% Stop 75 0 0 75 82 8 0.164 7.243 Yes 494 5.004 0.166 11.4	17% 58% 25% Stop 60 10 35 15 65 8 0.161 8.866 Yes 404 6.644 0.161 13.4	73% 27% 0% Stop 55 40 15 0 60 8 0.144 8.686 Yes 412 6.449 0.146 12.9	WBLn2 0% 0% 100% Stop 185 0 0 185 201 8 0.425 7.609 Yes 473 5.371 0.425 15.9	100% 0% 0% Stop 420 0 0 457 8 0.959 7.562 Yes 479 5.315 0.954 59.2	0% 100% 0% Stop 300 0 300 0 326 8 0.639 7.051 Yes 512 4.804 0.637 21.5	SBLn3 0% 0% 100% Stop 15 0 05 15 16 8 0.029 6.336 Yes 564 4.089 0.028 9.3		
Lane Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio		100% 0% 0% Stop 20 0 0 22 8 0.051 8.473 Yes 422 6.235 0.052	0% 100% 0% Stop 230 0 230 0 250 8 0.553 7.961 Yes 453 5.722 0.552	NBLn3 0% 0% 100% Stop 75 0 0 75 82 8 0.164 7.243 Yes 494 5.004 0.166	17% 58% 25% Stop 60 10 35 15 65 8 0.161 8.866 Yes 404 6.644 0.161	73% 27% 0% Stop 55 40 15 0 60 8 0.144 8.686 Yes 412 6.449 0.146	WBLn2 0% 0% 100% Stop 185 0 0 185 201 8 0.425 7.609 Yes 473 5.371 0.425	100% 0% 0% Stop 420 0 0 457 8 0.959 7.562 Yes 479 5.315 0.954	0% 100% 0% Stop 300 0 300 0 326 8 0.639 7.051 Yes 512 4.804 0.637	SBLn3 0% 0% 100% Stop 15 0 15 6 8 0.029 6.336 Yes 564 4.089 0.028		

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FRI	FRT	WRT	WRR	SRI	SBR
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nt	EBL	EBT	WBT	WBR:	SBLn1
	1615	-	-	-	1077
	0.028	-	-	-	0.048
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	EBL 35 35 0 Free 78 2 45 Major1 6 2.218 1615 1615 1615 EBB 6.4	EBL EBT 35 5 35 5 0 0 0 Free Free - None - 0 78 78 2 2 45 6 Major1 N 6 0 4.12 2.218 - 1615 1615 1615 EB 6.4 mt EBL 1615 0.028) 7.3	EBL EBT WBT 35 5 5 35 5 5 0 0 0 0 Free Free Free - None 0 0 78 78 78 78 2 2 2 2 45 6 6 Major1 Major2 6 0 1615 1615	EBL EBT WBT WBR 35 5 5 0 35 5 5 0 0 0 0 0 0 Free Free Free Free - None	EBL EBT WBT WBR SBL 35 5 5 0 0 35 5 5 0 0 0 0 0 0 0 Free Free Free Stop None - None - - 0 0 - 0 e, # - 0 0 - 0 e, # - 0 0 - 0 78 78 78 78 78 2 2 2 2 2 2 45 6 6 0 0 0 Major1 Major2 Minor2 Minor2 0 0 0 Major1 Major2 Minor2 0 0 0 0 0 Major1 Major2 0 0 0 0 0 0 0 0 0 0 0

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EBT	EBR	WBI	WBT	NBI	NBR
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-	-	-	-	5	-
-	-	4.12	-	6.42	6.22
-	-	-	-	5.42	-
-	-	-	-	5.42	-
-	-	2.218	-	3.518	3.318
-	-	1616	-	1010	1078
-	-	-	-	1018	-
-	-	-	-	1018	-
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EB		WB		NB	
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Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	LDIN	NDL	†	<u>301</u>	3DK
Traffic Vol, veh/h	15	30	15	T 372	6 67	25
Future Vol, veh/h	15	30	15	372	667	25
Conflicting Peds, #/hr	0	0	0	0	007	0
		Stop	Free	Free	Free	Free
Sign Control RT Channelized	Stop	None		None		None
	0		135		-	100
Storage Length		-		-	-	
Veh in Median Storage		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	33	16	404	725	27
Major/Minor	Minor2		Major1	N	/lajor2	
Conflicting Flow All	1161	725	752	0	-	0
Stage 1	725	-		-	_	-
Stage 2	436	_	_	_	_	_
Critical Hdwy	6.42	6.22	4.12	_	_	_
Critical Hdwy Stg 1	5.42	0.22	7.12	_	_	_
Critical Hdwy Stg 2	5.42	_			-	
Follow-up Hdwy		3.318	2 210		-	-
Pot Cap-1 Maneuver	216	425	858	-	-	_
•	479	423	000	-	-	-
Stage 1	652	-	-	-	-	-
Stage 2	002	-		-	-	-
Platoon blocked, %	212	/ 2E	050	-	-	-
Mov Cap-1 Maneuver	212	425	858	-	-	-
Mov Cap-2 Maneuver	212	-	-	-	-	-
Stage 1	470	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	18.4		0.4		0	
HCM LOS	C		0.7		U	
TIOWI LOG	U					
Minor Lane/Major Mvm	nt	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		858	-	318	-	-
HCM Lane V/C Ratio		0.019	-	0.154	-	-
HCM Control Delay (s)		9.3	-	18.4	-	-
HCM Lane LOS		Α	-	С	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	**	TIDIX	1	HDR) j	<u> </u>
Traffic Vol, veh/h	48	17	370	45	13	684
Future Vol, veh/h	48	17	370	45	13	684
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-		-	None
Storage Length	0	-	_	-	130	-
Veh in Median Storage		_	0	_	-	0
Grade, %	0	_	0	_	_	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	52	18	402	49	14	743
IVIVIII(I IOW	52	10	102	77	17	7 70
	/linor1		/lajor1		Major2	
Conflicting Flow All	1198	427	0	0	451	0
Stage 1	427	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	205	628	-	-	1109	-
Stage 1	658	-	-	-	-	-
Stage 2	456	-	-	-	-	-
Platoon blocked, %			_	-		-
Mov Cap-1 Maneuver	202	628	-	-	1109	-
Mov Cap-2 Maneuver	202	-	_	-	-	-
Stage 1	658	_	_	_	_	-
Stage 2	450	_	_	_	_	_
Olugo Z	100					
Approach	WB		NB		SB	
HCM Control Delay, s	25.4		0		0.2	
HCM LOS	D					
			NDD	MDI n1	SBL	SBT
Minor Lanc/Major Mum	t	NIDT	ייכועוו		וחנ	SDI
Minor Lane/Major Mvm	t	NBT	NBRV			
Capacity (veh/h)	t	-	-	246	1109	-
Capacity (veh/h) HCM Lane V/C Ratio	t	-	-	246 0.287	1109 0.013	-
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)	t	- -	-	246 0.287 25.4	1109 0.013 8.3	-
Capacity (veh/h) HCM Lane V/C Ratio		-	-	246 0.287	1109 0.013	-

Intersection						
Int Delay, s/veh	1					
		E = 5			057	055
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥				₽	
Traffic Vol, veh/h	22	25	40	393	696	37
Future Vol, veh/h	22	25	40	393	696	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage	e, # 1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	27	43	427	757	40
				,		
	Minor2		Major1		/lajor2	
Conflicting Flow All	1290	777	797	0	-	0
Stage 1	777	-	-	-	-	-
Stage 2	513	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	180	397	825	-	-	-
Stage 1	453	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Platoon blocked, %				_	_	_
Mov Cap-1 Maneuver	171	397	825	_		_
Mov Cap-1 Maneuver	303	- 371	023	_	_	_
Stage 1	429	-	-	_	-	-
		•		•	-	
Stage 2	601	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	17.2		0.9		0	
HCM LOS	C		317			
1.5W E00						
Minor Lone /Maior M		NDI	NDT	FDI1	CDT	CDD
Minor Lane/Major Mvn	Il	NBL	MRI	EBLn1	SBT	SBR
Capacity (veh/h)		825	-	347	-	-
HCM Lane V/C Ratio		0.053	-	0.147	-	-
HCM Control Delay (s)		9.6	-	17.2	-	-
HCM Lane LOS		Α	-	С	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

Intersection												
Intersection Delay, s/veh	33.7											
Intersection LOS	D											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्स	7	ሻ	1	7	ሻ	†	7
Traffic Vol, veh/h	10	35	15	40	15	194	20	239	75	428	308	15
Future Vol, veh/h	10	35	15	40	15	194	20	239	75	428	308	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	38	16	43	16	211	22	260	82	465	335	16
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			1			3			3		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	3			3			1			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	3			3			2			1		
HCM Control Delay	13.6			15.9			18.8			47.8		
HCM LOS	В			С			С			Е		
Lane		NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3		
Vol Left, %		100%	0%	0%	17%	73%	0%	100%	0%	0%		
Vol Left, % Vol Thru, %		100% 0%	0% 100%	0% 0%	17% 58%	73% 27%	0% 0%	100% 0%	0% 100%	0% 0%		
Vol Left, % Vol Thru, % Vol Right, %		100% 0% 0%	0% 100% 0%	0% 0% 100%	17% 58% 25%	73% 27% 0%	0% 0% 100%	100% 0% 0%	0% 100% 0%	0% 0% 100%		
Vol Left, % Vol Thru, % Vol Right, % Sign Control		100% 0% 0% Stop	0% 100% 0% Stop	0% 0% 100% Stop	17% 58% 25% Stop	73% 27% 0% Stop	0% 0% 100% Stop	100% 0% 0% Stop	0% 100% 0% Stop	0% 0% 100% Stop		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane		100% 0% 0% Stop 20	0% 100% 0% Stop 239	0% 0% 100% Stop 75	17% 58% 25% Stop 60	73% 27% 0% Stop 55	0% 0% 100% Stop 194	100% 0% 0% Stop 428	0% 100% 0% Stop 308	0% 0% 100% Stop 15		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol		100% 0% 0% Stop 20	0% 100% 0% Stop 239	0% 0% 100% Stop 75 0	17% 58% 25% Stop 60 10	73% 27% 0% Stop 55 40	0% 0% 100% Stop 194	100% 0% 0% Stop 428 428	0% 100% 0% Stop 308	0% 0% 100% Stop 15		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol		100% 0% 0% Stop 20 20	0% 100% 0% Stop 239 0	0% 0% 100% Stop 75 0	17% 58% 25% Stop 60 10 35	73% 27% 0% Stop 55 40	0% 0% 100% Stop 194 0	100% 0% 0% Stop 428 428	0% 100% 0% Stop 308 0	0% 0% 100% Stop 15 0		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol		100% 0% 0% Stop 20 20 0	0% 100% 0% Stop 239 0 239	0% 0% 100% Stop 75 0 0	17% 58% 25% Stop 60 10 35	73% 27% 0% Stop 55 40 15	0% 0% 100% Stop 194 0 0	100% 0% 0% Stop 428 428 0	0% 100% 0% Stop 308 0 308	0% 0% 100% Stop 15 0		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate		100% 0% 0% Stop 20 20 0	0% 100% 0% Stop 239 0 239 0	0% 0% 100% Stop 75 0 0 75	17% 58% 25% Stop 60 10 35 15	73% 27% 0% Stop 55 40 15 0	0% 0% 100% Stop 194 0 0 194 211	100% 0% 0% Stop 428 428 0 0	0% 100% 0% Stop 308 0 308	0% 0% 100% Stop 15 0 0		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp		100% 0% 0% Stop 20 20 0 0	0% 100% 0% Stop 239 0 239 0 260	0% 0% 100% Stop 75 0 0 75 82	17% 58% 25% Stop 60 10 35 15 65	73% 27% 0% Stop 55 40 15 0	0% 0% 100% Stop 194 0 0 194 211	100% 0% 0% Stop 428 428 0 0 465	0% 100% 0% Stop 308 0 308 0 338 8	0% 0% 100% Stop 15 0 0 15		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X)		100% 0% 0% Stop 20 20 0 0 22 8	0% 100% 0% Stop 239 0 239 0 260 8 0.582	0% 0% 100% Stop 75 0 0 75 82 8 0.166	17% 58% 25% Stop 60 10 35 15 65 8 0.163	73% 27% 0% Stop 55 40 15 0 60	0% 0% 100% Stop 194 0 0 194 211 8 0.452	100% 0% 0% Stop 428 428 0 0 465 8	0% 100% 0% Stop 308 0 308 0 335 8 0.665	0% 0% 100% Stop 15 0 15 0 0 15 16 8 0.029		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd)		100% 0% 0% Stop 20 0 0 22 8 0.052 8.582	0% 100% 0% Stop 239 0 239 0 260 8 0.582 8.069	0% 0% 100% Stop 75 0 0 75 82 8 0.166 7.35	17% 58% 25% Stop 60 10 35 15 65 8 0.163 9.017	73% 27% 0% Stop 55 40 15 0 60 8 0.146	0% 0% 100% Stop 194 0 0 194 211 8 0.452 7.71	100% 0% 0% Stop 428 428 0 0 465 8 0.99 7.662	0% 100% 0% Stop 308 0 308 0 335 8 0.665 7.151	0% 0% 100% Stop 15 0 0 15 16 8 0.029 6.435		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N		100% 0% 0% Stop 20 0 0 22 8 0.052 8.582 Yes	0% 100% 0% Stop 239 0 239 0 260 8 0.582 8.069 Yes	0% 0% 100% Stop 75 0 0 75 82 8 0.166 7.35 Yes	17% 58% 25% Stop 60 10 35 15 65 8 0.163 9.017 Yes	73% 27% 0% Stop 55 40 15 0 60 8 0.146 8.788 Yes	0% 0% 100% Stop 194 0 0 194 211 8 0.452 7.71 Yes	100% 0% 0% Stop 428 428 0 0 465 8 0.99 7.662 Yes	0% 100% 0% Stop 308 0 308 0 335 8 0.665 7.151 Yes	0% 0% 100% Stop 15 0 0 15 16 8 0.029 6.435 Yes		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap		100% 0% 0% Stop 20 0 0 22 8 0.052 8.582 Yes 417	0% 100% 0% Stop 239 0 239 0 260 8 0.582 8.069 Yes 447	0% 0% 100% Stop 75 0 0 75 82 8 0.166 7.35 Yes 487	17% 58% 25% Stop 60 10 35 15 65 8 0.163 9.017 Yes 397	73% 27% 0% Stop 55 40 15 0 60 8 0.146 8.788 Yes 408	0% 0% 100% Stop 194 0 0 194 211 8 0.452 7.71 Yes 466	100% 0% 0% Stop 428 428 0 0 465 8 0.99 7.662 Yes 475	0% 100% 0% Stop 308 0 308 0 335 8 0.665 7.151 Yes 506	0% 0% 100% Stop 15 0 0 15 16 8 0.029 6.435 Yes 555		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time		100% 0% 0% Stop 20 0 0 22 8 0.052 8.582 Yes 417 6.349	0% 100% 0% Stop 239 0 239 0 260 8 0.582 8.069 Yes 447 5.835	0% 0% 100% Stop 75 0 0 75 82 8 0.166 7.35 Yes 487 5.116	17% 58% 25% Stop 60 10 35 15 65 8 0.163 9.017 Yes 397 6.802	73% 27% 0% Stop 55 40 15 0 60 8 0.146 8.788 Yes 408 6.554	0% 0% 100% Stop 194 0 0 194 211 8 0.452 7.71 Yes 466 5.475	100% 0% 0% Stop 428 428 0 0 465 8 0.99 7.662 Yes 475 5.421	0% 100% 0% Stop 308 0 338 0 335 8 0.665 7.151 Yes 506 4.909	0% 0% 100% Stop 15 0 0 15 16 8 0.029 6.435 Yes 555 4.193		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio		100% 0% 0% Stop 20 0 0 22 8 0.052 8.582 Yes 417 6.349 0.053	0% 100% 0% Stop 239 0 239 0 260 8 0.582 8.069 Yes 447 5.835 0.582	0% 0% 100% Stop 75 0 0 75 82 8 0.166 7.35 Yes 487 5.116 0.168	17% 58% 25% Stop 60 10 35 15 65 8 0.163 9.017 Yes 397 6.802 0.164	73% 27% 0% Stop 55 40 15 0 60 8 0.146 8.788 Yes 408 6.554 0.147	0% 0% 100% Stop 194 0 0 194 211 8 0.452 7.71 Yes 466 5.475 0.453	100% 0% 0% Stop 428 428 0 0 465 8 0.99 7.662 Yes 475 5.421 0.979	0% 100% 0% Stop 308 0 338 0 335 8 0.665 7.151 Yes 506 4.909 0.662	0% 0% 100% Stop 15 0 0 15 16 8 0.029 6.435 Yes 555 4.193 0.029		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio HCM Control Delay		100% 0% 0% Stop 20 0 0 22 8 0.052 8.582 Yes 417 6.349 0.053 11.8	0% 100% 0% Stop 239 0 239 0 260 8 0.582 8.069 Yes 447 5.835 0.582 21.6	0% 0% 100% Stop 75 0 0 75 82 8 0.166 7.35 Yes 487 5.116 0.168 11.6	17% 58% 25% Stop 60 10 35 15 65 8 0.163 9.017 Yes 397 6.802 0.164 13.6	73% 27% 0% Stop 55 40 15 0 60 8 0.146 8.788 Yes 408 6.554 0.147	0% 0% 100% Stop 194 0 0 194 211 8 0.452 7.71 Yes 466 5.475 0.453 16.7	100% 0% 0% Stop 428 428 0 0 465 8 0.99 7.662 Yes 475 5.421 0.979 66.9	0% 100% 0% Stop 308 0 338 0 335 8 0.665 7.151 Yes 506 4.909 0.662 23.1	0% 0% 100% Stop 15 0 0 15 16 8 0.029 6.435 Yes 555 4.193 0.029 9.4		
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio		100% 0% 0% Stop 20 0 0 22 8 0.052 8.582 Yes 417 6.349 0.053	0% 100% 0% Stop 239 0 239 0 260 8 0.582 8.069 Yes 447 5.835 0.582	0% 0% 100% Stop 75 0 0 75 82 8 0.166 7.35 Yes 487 5.116 0.168	17% 58% 25% Stop 60 10 35 15 65 8 0.163 9.017 Yes 397 6.802 0.164	73% 27% 0% Stop 55 40 15 0 60 8 0.146 8.788 Yes 408 6.554 0.147	0% 0% 100% Stop 194 0 0 194 211 8 0.452 7.71 Yes 466 5.475 0.453	100% 0% 0% Stop 428 428 0 0 465 8 0.99 7.662 Yes 475 5.421 0.979	0% 100% 0% Stop 308 0 338 0 335 8 0.665 7.151 Yes 506 4.909 0.662	0% 0% 100% Stop 15 0 0 15 16 8 0.029 6.435 Yes 555 4.193 0.029		

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	\$		Y	USIN
Traffic Vol, veh/h	35	38	35	0	0	40
Future Vol, veh/h	35	38	35	0	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	. # -	0	0	-	0	-
Grade, %	-	0	0	_	0	_
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	49	45	0	0	51
WWW. Flow	10	.,	10			01
	Major1		Major2		Minor2	
Conflicting Flow All	45	0	-	0	184	45
Stage 1	-	-	-	-	45	-
Stage 2	-	-	-	-	139	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1563	-	-	-	805	1025
Stage 1	-	-	-	-	977	-
Stage 2	-	-	-	-	888	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1563	-	-	-	781	1025
Mov Cap-2 Maneuver	-	-	-	-	781	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	_	_	888	_
g • -						
			10.00			
Approach	EB		WB		SB	
HCM Control Delay, s	3.5		0		8.7	
HCM LOS					Α	
Minor Lane/Major Mvm	nt	EBL	EBT	WBT	WBR :	SBI n1
Capacity (veh/h)		1563	-	1101		1025
HCM Lane V/C Ratio		0.029	-	-	-	0.05
HCM Control Delay (s)		7.4	0	-	-	8.7
HCM Lane LOS		7.4 A	A	_	-	Α
HCM 95th %tile Q(veh)	1	0.1	- A	_	-	0.2
How four four Q(Ven)	1	U. I				0.2

3.6					
EBT	EBR	WBL	WBT	NBL	NBR
	33	0			0
					0
					0
					Stop
					None
					None -
					-
					-
					92
					2
5	36	U	5	33	0
Major1	N	Major2	1	Minor1	
					23
-	-	-	-		-
-	_	_	_		_
_	-		-		6.22
_	_	-			-
					_
_					
_	-		-		1054
-	<u>-</u>				1004
-	-				
-	-	-		1018	-
	-	45.0	-	007	1051
	-		-		1054
-	-	-	-		-
-	-	-	-		-
-	-	-	-	1018	-
ED		///D		NID	
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				A	
nt l	NBI n1	FRT	FBR	WRI	WBT
					-
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1)	A 0.1	-	-	A 0	-
	EBT 5 0 Free - e, # 0 92 2 5 Major1	EBT EBR 5 33 5 33 0 0 0 Free Free - None e, # 0 - 92 92 2 2 2 5 36 Major1 0 0	EBT EBR WBL 5 33 0 0 0 0 Free Free Free - None - e, # 0 - - 92 92 92 2 2 2 5 36 0 Major1 Major2 0 0 41	EBT EBR WBL WBT 5 33 0 5 5 33 0 5 0 0 0 0 0 Free Free Free Free - None - None 0 0 0 92 92 92 92 2 2 2 2 2 5 36 0 5 Major1 Major2 0 0 0 41 0	EBT EBR WBL WBT NBL 5 33 0 5 30 5 33 0 5 30 0 0 0 0 0 Free Free Free Stop - - None - 0 0 - None - 0 0 e, # 0 - - 0 0 0 - - 0 0 92 92 92 92 92 2 2 2 2 2 2 2 3 0 5 33 3 Major1 Major2 Minor1 0 28 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 4

Phone: E-Mail:		Fa	.x:						
Direct	ional Two-La	ne High	way S	Segment .	Analys	is			
Analyst kda Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 49 From/To Auburn to Sr 193 Jurisdiction Caltrans Analysis Year 2019 Description Cool Dollar General									
	I:	nput Da	.ta						
Segment length 8. Terrain type Ro	.0 ft 0 mi lling mi %	% Truc % Truck % Recr % No-p Access	ks arks crawleation	Eactor, ind buses rawling speed onal vehing zones it densi	icles	0.92 6 0.0 0.0 4 100	% % mi/hr % % /mi		
Opposing direction volu		veh							
	Average	Travel	Spee	ed					
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor,(note Directional flow rate,(-1) fg	fHV	ysis(2.1) 1.1 0.935 0.81 369	5		posing (1.7 1.1 0.956 0.97 658	o) pc/h		
Free-Flow Speed from Fi Field measured speed, (no Observed total demand, (no Estimated Free-Flow Speeds, (no Adj. for lane and shoul Adj. for access point of Free-flow speed, FFSd	ote-3) S FM note-3) V ed: ote-3) BFFS der width,(n	ote-3)	fLS	- - 55.0 2.6 2.0	<pre>mi/h veh/h mi/h mi/h mi/h mi/h</pre>				
Adjustment for no-passi Average travel speed, A Percent Free Flow Speed	TSd	p		1.7 40.7 80.8	mi/h mi/h %				

Percent Time-Spent-Follow:	ing		
Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	c/h 42.4 % 32.4		pc/h
Percent time-spent-following, PTSFd	53.9 %		
Level of Service and Other Performa	ance Meas	ures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	2056 13.7 1576 1666	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 40.7 53.9 D	mi mi mi mi/h
Average Travel Speed with Pass:	ing Lane_		
Downstream length of two-lane highway within effect length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi
length of the passing lane for average travel s Adj. factor for the effect of passing lane on average speed, fpl	speed, Ld	_	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFR	FSpl	- 0.0	%
Percent Time-Spent-Following with I	Passing L	ane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	_	mi
the passing lane for percent time-spent-follow: Adj. factor for the effect of passing lane on percent time-spent-following, fpl		-	mi
Percent time-spent-following including passing lane, PTSFpl		-	%
Level of Service and Other Performance Measur	res with	Passing I	ane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Service	=		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
5,	3
Flow rate in outside lane, vOL	279.3
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.24
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		Fax:				
Direct	ional Two-Lane	Highway S	Segment 2	Analys	is	
Analyst Agency/Co. Date Performed Analysis Time Period Highway From/To Jurisdiction Analysis Year Description Cool Dolla	SR 49 Auburn to Sr 1 Caltrans 2019	93				
	Inpu	t Data				
Lane width 12 Segment length 8. Terrain type Ro Grade: Length - Up/down -	0 ft % .0 ft % 0 mi Tr lling % mi % Ac	ak hour f Trucks ar Trucks cr uck crawl Recreation No-passir cess poir	nd buses cawling l speed onal veh ng zones	icles	0.92 6 0.0 0.0 4 100 8	% % mi/hr % % /mi
Analysis direction volu Opposing direction volu						
	Average Tr	avel Spee	ed			
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor,(note Directional flow rate,(or,(note-5) fHV	Analysis(1.7 1.1 0.956 0.97 658	5		posing (2.1 1.1 0.935 0.81 369	o) pc/h
Free-Flow Speed from Fi Field measured speed, (n Observed total demand, (Estimated Free-Flow Spe Base free-flow speed, (n Adj. for lane and shoul Adj. for access point d	ote-3) S FM note-3) V ed: ote-3) BFFS der width,(note	-3) fLS	- - 55.0 2.6 2.0	mi/h veh/h mi/h mi/h mi/h		
Free-flow speed, FFSd			50.4	mi/h		
Adjustment for no-passi Average travel speed, A Percent Free Flow Speed	TSd		2.9 39.5 78.4	mi/h mi/h %		

Percent Time	-Spent-Follow	ing		
Direction	Analysis(d)	(Opposing	(0)
PCE for trucks, ET	1.0	·	1.7	(0)
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	1.000		0.960	
Grade adjustment factor, (note-1) fg	0.97		0.84	
Directional flow rate, (note-2) vi		c/h	347	pc/h
Base percent time-spent-following, (no	-		317	PC/11
Adjustment for no-passing zones, fnp	CC 4) DFISFQ	32.4	0	
Percent time-spent-following, PTSFd			9	
Level of Service and	Other Perform	ance Meas	sures	
Lovel of governo LOC		T.		
Level of service, LOS		E		
Volume to capacity ratio, v/c	778EE 1 E	0.39	. 1	
Peak 15-min vehicle-miles of travel,		1220	veh-mi	
Peak-hour vehicle-miles of travel, VM	160	4488	veh-mi	
Peak 15-min total travel time, TT15		30.9	veh-h	
Capacity from ATS, CdATS		1367	veh/h	
Capacity from PTSF, CdPTSF		1428	veh/h	
Directional Capacity		1367	veh/h	
Passing	Lane Analysis			
Total length of analysis segment, Lt			8.0	mi
Length of two-lane highway upstream o	f the nagging	lane I.		mi
Length of passing lane including tape		ianc, in	_	mi
Average travel speed, ATSd (from abov			39.5	mi/h
			77.4	1111
Percent time-spent-following, PTSFd (irom above)			
Level of service, LOSd (from above)			Ε	
Average Travel Spe	ed with Pass	ing Lane		
Downstream length of two-lane highway	within effec	tive		
length of passing lane for averag			_	mi
Length of two-lane highway downstream	_			
length of the passing lane for av			٦ _	mi
Adj. factor for the effect of passing		вреса, в	4	шт
on average speed, fpl	Talle			
	a lana Amenl		_	
Average travel speed including passin		E C 1	- 0	0.
Percent free flow speed including pas	sing lane, PF	FSPI	0.0	90
Percent Time-Spent-Fo	llowing with	Passing 1	Lane	
Downstream length of two-lane highway	within effect	tive lend	ath	
of passing lane for percent time-			-	mi
Length of two-lane highway downstream	_		n f	
the passing lane for percent time			_	mi
Adj. factor for the effect of passing		тиу, ша	-	11111
on percent time-spent-following,			_	
	TPI		_	
Percent time-spent-following including passing lane, PTSFpl			_	ે
Level of Service and Other Perf	ormance Measu	res with	Passing	Lane
	- Indiana			
Level of service including passing la	ne, LOSpl	E		
Peak 15-min total travel time, TT15	- -	-	veh-h	
Bicvcle Le	vel of Servic	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	2
3 ,	3
Flow rate in outside lane, vOL	609.8
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.64
Bicycle LOS	F

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		F	ax:				
Direct	tional Two-La	ne Higl	nway S	Segment .	Analys	is	
Analyst	kda						
Agency/Co. Date Performed	3/9/2020						
Analysis Time Period							
Highway	SR 49						
From/To	SR 193 TO C	AMOJC					
	Caltrans						
Analysis Year Description Cool Dolla							
Description Coor Doils	ar Generar						
	I	nput Da	ata				
Highway class Class 1		Peak l	nour i	factor,	PHF	0.92	
Shoulder width 2	.0 ft	% Tru	cks ar	nd buses		6	%
				rawling		0.0	%
				l speed		0.0	mi/hr
	· .			onal veh		4	% %
Grade: Length - Up/down -	mi %			ng zones nt densi		100 8	/mi
Analysis direction volu		vel	n/h	ed			
Direction		Ana	lysis	(d)	ia0	posing (0)
PCE for trucks, ET		111101	2.2	(~)	OFI	2.1	0 /
PCE for RVs, ER			1.1			1.1	
Heavy-vehicle adj. fact		fHV	0.929			0.935	
Grade adj. factor, (note	_		0.78			0.81	
Directional flow rate,	(note-2) vi		320	pc/h		367	pc/h
Free-Flow Speed from F: Field measured speed, (1) Observed total demand,	note-3) S FM	ent:		-	mi/h veh/h		
Estimated Free-Flow Spe	eed:			_			
Base free-flow speed, (6	55.0	mi/h		
Adj. for lane and should				2.6	mi/h		
Adj. for access point of	density, (note	-3) IA		2.0	mi/h		
Free-flow speed, FFSd				50.4	mi/h		
Adjustment for no-pass:	ing zones, fn	р		2.9	mi/h		
Average travel speed, A		_		42.1	mi/h		
Percent Free Flow Speed	d, PFFS			83.6	%		

Percent Time-Spent-Follow	ing		
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	c/h	pposing (1.7 1.0 0.960 0.84 345	pc/h
Percent time-spent-following, PTSFd	58.3 %		
Level of Service and Other Performa	ance Meas	ures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	1704 11.0 1367 1428	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 42.1 58.3 D	mi mi mi mi/h
Average Travel Speed with Pass:	ing Lane_		
Downstream length of two-lane highway within effective length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi
length of the passing lane for average travel : Adj. factor for the effect of passing lane on average speed, fpl	speed, Ld	- -	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	FSpl	- 0.0	%
Percent Time-Spent-Following with	Passing L	ane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	-	mi
the passing lane for percent time-spent-follows Adj. factor for the effect of passing lane on percent time-spent-following, fpl		_	mi
Percent time-spent-following including passing lane, PTSFpl		-	8
Level of Service and Other Performance Measu:	res with	Passing I	lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E - ·	veh-h	
Bicycle Level of Service	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
referred of segment with occupied on-nighway parking	U
Pavement rating, P	3
Flow rate in outside lane, vOL	231.5
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.15
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		Fá	ax:				
Direct	ional Two-Lar	ne High	nway S	Segment .	Analys	is	
Analyst kda Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 49 From/To SR 193 TO COLOMA Jurisdiction Caltrans Analysis Year 2019 Description Cool Dollar General							
	I1	nput Da	ata				
Segment length 8. Terrain type Ro Grade: Length - Up/down -	0 ft .0 ft 0 mi lling mi %	% Truck % Recr % No-r Access	cks arcks crawl cr	factor, and buses cawling speed onal vehing zones it densi	icles	0.92 6 0.0 0.0 4 100	% % mi/hr % % /mi
Analysis direction volu Opposing direction volu							
	Average	Travel	L Spe	ed			
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor,(note Directional flow rate,(-1) fg		2.1 1.1 0.935 0.81 367			posing (2.2 1.1 0.929 0.78 320	o) pc/h
Free-Flow Speed from Fi Field measured speed, (no Observed total demand, (Estimated Free-Flow Speeds free-flow speed, (no Adj. for lane and shoul Adj. for access point defined free-Flow speed).	ote-3) S FM note-3) V ed: ote-3) BFFS der width,(no	ote-3)	fLS	- - 55.0 2.6 2.0	mi/h veh/h mi/h mi/h		
Free-flow speed, FFSd Adjustment for no-passi Average travel speed, A Percent Free Flow Speed	TSd	р		3.2 41.8 83.0	mi/h mi/h mi/h %		

Percent Time-Spent-Follow	ing		
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	c/h		pc/h
Level of Service and Other Perform	ance Meas	sures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	2048 13.3 1319 1387	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 41.8 65.8 D	mi mi mi mi/h
Average Travel Speed with Pass:	ing Lane_		
Downstream length of two-lane highway within effective length of passing lane for average travel speed Length of two-lane highway downstream of effective length of the passing lane for average travel speeds	d, Lde	- l -	mi mi
Adj. factor for the effect of passing lane on average speed, fpl		_	
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	FSpl	- 0.0	8
Percent Time-Spent-Following with	Passing L	ane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	_	mi
the passing lane for percent time-spent-follow: Adj. factor for the effect of passing lane on percent time-spent-following, fpl		-	mi
Percent time-spent-following including passing lane, PTSFpl		-	%
Level of Service and Other Performance Measu:	res with	Passing I	ane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Service	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	278.3
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.24
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		F	ax:				
Direct	ional Two-Lar	ne Higl	nway :	Segment .	Analys	is	
Analyst	kda						
Agency/Co. Date Performed Analysis Time Period							
Highway From/To	SR 193 SR 49 TO GE	ORGETO	WN				
	Caltrans						
Analysis Year Description Cool Dolla							
Description Coor Dorra							
	I1	nput Da	ata				
Highway class Class 1		Peak l	nour :	factor,	PHF	0.92	
Shoulder width 2.				nd buses		6	%
				rawling		0.0	% mi/hr
Segment length 8. Terrain type Ro				l speed onal veh	icles	4	%
Grade: Length -	mi			ng zones		100	%
Up/down -	%	-	-	nt densi		8	/mi
Analysis direction volu Opposing direction volu		vel vel					
	Average	Trave	l Spe	ed			
Direction		Ana	lysis	(d)	rq0	posing (0)
PCE for trucks, ET			1.8			2.3	
PCE for RVs, ER			1.1			1.1	
Heavy-vehicle adj. fact		EHV	0.95			0.924	
Grade adj. factor,(note Directional flow rate,(0.95	pc/h		0.76 310	pc/h
Directional flow rate, (noce z, vi		302	pc/II		310	pc/II
Free-Flow Speed from Fi		ent:			1. (2		
Field measured speed, (n				_	mi/h		
Observed total demand,(Estimated Free-Flow Spe				_	veh/h		
Base free-flow speed, (n				55.0	mi/h		
Adj. for lane and shoul		ote-3)	fLS	2.6	mi/h		
Adj. for access point d	ensity,(note	-3) fA		2.0	mi/h		
Free-flow speed, FFSd				50.4	mi/h		
Adjustment for no-passi	ng zones, fn;	<u>o</u>		3.3	mi/h		
Average travel speed, A				40.3	mi/h		
Percent Free Flow Speed	, PFFS			80.0	%		

Percent Time-Spent-Follow:	ing		
Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	c/h 49.2 % 35.2		pc/h
Percent time-spent-following, PTSFdLevel of Service and Other Performa	72.3 %		
	ance meas	ures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	3736 25.2 1287 1370	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 40.3 72.3 D	mi mi mi mi/h
Average Travel Speed with Pass:	ing Lane_		
Downstream length of two-lane highway within effect length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi
length of the passing lane for average travel and adj. factor for the effect of passing lane on average speed, fpl	speed, Ld	_	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFI	FSpl	- 0.0	8
Percent Time-Spent-Following with	Passing L	ane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	-	mi
the passing lane for percent time-spent-follow: Adj. factor for the effect of passing lane		-	mi
on percent time-spent-following, fpl Percent time-spent-following including passing lane, PTSFpl		-	8
Level of Service and Other Performance Measur	res with	Passing I	lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Service	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	507.6
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.54
Bicycle LOS	F

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		Fa	ax:				
Direct	ional Two-Lar	ne High	nway S	Segment .	Analys	is	
Analyst Agency/Co. Date Performed	kda 3/9/2020						
	Analysis Time Period PM Peak Highway SR 193						
	Caltrans 2019	0110220					
-		nput Da	ata				
	+·	iipuc be	<i>aca</i>				
		% Truc % Truc	cks ar cks cr	Eactor, ind buses cawling been		0.92 6 0.0 0.0	% % mi/hr
Terrain type Ro Grade: Length - Up/down -	lling mi	% Reci % No-p	reatio passir	onal veh ng zones nt densi		100 8	% % /mi
Analysis direction volu Opposing direction volu			n/h n/h				
	Average	Travel	l Spee	ed			
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor, (note			lysis 2.3 1.1 0.924 0.76		Opj	posing (1.8 1.1 0.951 0.95	0)
Directional flow rate, (_			pc/h		562	pc/h
Free-Flow Speed from Fi Field measured speed,(n Observed total demand,(Estimated Free-Flow Spe	ote-3) S FM note-3) V	ent:		_ _	mi/h veh/h		
Base free-flow speed, (n Adj. for lane and shoul Adj. for access point d	ote-3) BFFS der width,(no			55.0 2.6 2.0	mi/h mi/h mi/h		
Free-flow speed, FFSd				50.4	mi/h		
Adjustment for no-passi Average travel speed, A Percent Free Flow Speed	TSd	p		2.1 41.6 82.5	mi/h mi/h %		

Percent Time	-Spent-Follow	ing		
Direction	Analysis(d)		Opposing	(0)
PCE for trucks, ET	1.7		1.2	(0)
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	0.960		0.988	
Grade adjustment factor, (note-1) fg	0.81		0.96	
Directional flow rate, (note-2) vi		c/h	535	pc/h
Base percent time-spent-following, (no	-		%	PC/11
Adjustment for no-passing zones, fnp	CC 4) DFISFG	35.2	•	
Percent time-spent-following, PTSFd		47.0	%	
Level of Service and	Other Perform	ance Mea	asures	
Tarral of same to TOG		F.		
Level of service, LOS		D 0 10		
Volume to capacity ratio, v/c	1 =	0.18	, ,	
Peak 15-min vehicle-miles of travel,		435	veh-mi	
Peak-hour vehicle-miles of travel, VM	T60	1600	veh-mi	
Peak 15-min total travel time, TT15		10.5	veh-h	
Capacity from ATS, CdATS		1552	veh/h	
Capacity from PTSF, CdPTSF		1613	veh/h	
Directional Capacity		1552	veh/h	
Passing	Lane Analysis			
Total length of analysis segment, Lt			8.0	mi
Length of two-lane highway upstream o	f the nagging	lane T		mi
Length of passing lane including tape		Talle, I	Ju –	mi
			41.6	mi/h
Average travel speed, ATSd (from abov				1111 / 11
Percent time-spent-following, PTSFd (from above)		47.0	
Level of service, LOSd (from above)			D	
Average Travel Spe	ed with Pass	ing Lane	2	
Downstream length of two-lane highway	within effec	tive		
length of passing lane for averag			_	mi
Length of two-lane highway downstream	_			
length of the passing lane for av			.d -	mi
Adj. factor for the effect of passing		speed, I	1a –	шт
	Talle			
on average speed, fpl] 7.MG]		_	
Average travel speed including passin			-	0
Percent free flow speed including pas	sing lane, PF	FSPI	0.0	%
Percent Time-Spent-Fo	llowing with	Passing	Lane	
Downstream length of two-lane highway	within effec	tive ler	ngth	
of passing lane for percent time-				mi
Length of two-lane highway downstream	_			
the passing lane for percent time				mi
Adj. factor for the effect of passing		, na		
on percent time-spent-following,			_	
	тЪт		_	
Percent time-spent-following including passing lane, PTSFpl			_	%
Level of Service and Other Perf	ormance Measu	res with	n Passing	Lane
			3	
Level of service including passing la	ne, LOSpl	E		
Peak 15-min total travel time, TT15	-	_	veh-h	
Bicvcle Le	vel of Servic	e _		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	217.4
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.11
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		Fax:					
Direct	ional Two-Lane	e Highway S	Segment .	Analys	is		
Analyst kda Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 49 From/To Auburn to Sr 193 Jurisdiction Caltrans Analysis Year 2019 plus DOLLAR GENERAL Description Cool Dollar General							
	In <u>r</u>	out Data					
Segment length 8. Terrain type Ro Grade: Length - Up/down -	0 ft 8 .0 ft 8 0 mi 7 lling 8 mi 8	Peak hour in the Trucks and Truck craw in the Recreation No-passin Access poin	nd buses rawling l speed onal veh ng zones	icles	0.92 6 0.0 0.0 4 100 8	% % mi/hr % % /mi	
Analysis direction volu Opposing direction volu							
	Average 1	Travel Spe	ed				
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor,(note Directional flow rate,(-1) fg	Analysis 2.1 1.1 HV 0.93! 0.82 367	5		posing (1.7 1.1 0.956 0.97 660	o) pc/h	
Free-Flow Speed from Fi Field measured speed,(n Observed total demand,(Estimated Free-Flow Spe Base free-flow speed,(n Adj. for lane and shoul Adj. for access point defined	ote-3) S FM note-3) V ed: ote-3) BFFS der width,(not	te-3) fLS	- - 55.0 2.6 2.0	mi/h veh/h mi/h mi/h mi/h			
Adjustment for no-passi Average travel speed, A Percent Free Flow Speed	TSd		1.7 40.7 80.8	mi/h mi/h %			

Percent Time-Spent-Follow:	ing		
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	c/h	1.0 1.0 1.00 0.97 631	(0) pc/h
Percent time-spent-following, PTSFd	53.9	ò	
Level of Service and Other Performa	ance Meas	sures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	D 0.22 563 2072 13.8 1576 1666 1576	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 40.7 53.9 D	mi mi mi mi/h
Average Travel Speed with Pass:	ing Lane_		
Downstream length of two-lane highway within effect length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi
length of the passing lane for average travel and adj. factor for the effect of passing lane on average speed, fpl	speed, Lo	d – –	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFI	FSpl	0.0	ે
Percent Time-Spent-Following with 1	Passing I	Lane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	-	mi
the passing lane for percent time-spent-follow: Adj. factor for the effect of passing lane on percent time-spent-following, fpl		_	mi
Percent time-spent-following including passing lane, PTSFpl		-	%
Level of Service and Other Performance Measur	res with	Passing I	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Service	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	2
5,	3
Flow rate in outside lane, vOL	281.5
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.25
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		F	ax:				
Direct	ional Two-La	ne Hig	hway	Segment	Analys	is	
Analyst	kda						
Agency/Co. Date Performed	3/9/2020						
Analysis Time Period							
Highway	SR 49						
From/To	Auburn to S	r 193					
	Caltrans						
Analysis Year Description Cool Dolla	_	OLLAR	GENER.	AL			
Description Cool Dolla	ir General						
	I	input D	ata				
Highway class Class 1		Peak	hour	factor,	PHF	0.92	
Shoulder width 2.	0 ft	% Tru	cks a	nd buses		6	%
				rawling		0.0	%
Segment length 8.				l speed		0.0	mi/hr
Terrain type Ro	· .			onal veh		4	% %
Grade: Length - Up/down -	mi %		_	ng zones nt densi		100 8	% /mi
op/down –	·o	ACCES	s por.	iic delisi	Сy	O	/ III I
Analysis direction volu Opposing direction volu							
	Average	Trave	l Spe	ed			
Direction		Ana	lysis	(d)	(a)	posing (0)
PCE for trucks, ET		111101	1.7	(3.)	o _F	2.1	0 /
PCE for RVs, ER			1.1			1.1	
Heavy-vehicle adj. fact	cor,(note-5)	fHV	0.95	6		0.935	
Grade adj. factor, (note			0.97			0.82	
Directional flow rate,(note-2) vi		660	pc/h		367	pc/h
Free-Flow Speed from Fi	eld Measurem	nent:					
Field measured speed, (r				-	mi/h		
Observed total demand, (note-3) V			-	veh/h		
Estimated Free-Flow Spe							
Base free-flow speed, (r		. 2)	C = G	55.0	mi/h		
Adj. for lane and shoul				2.6	mi/h		
Adj. for access point of	ensity,(note	e-3) IA		2.0	mi/h		
Free-flow speed, FFSd				50.4	mi/h		
Adjustment for no-passi	ng zones, fn	qı		2.9	mi/h		
Average travel speed, A		-		39.5	mi/h		
Percent Free Flow Speed				78.4	%		

Percent Time-Spent-Follow	ing		
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	c/h	pposing (1.7 1.0 0.960 0.84 349	pc/h
Percent time-spent-following, PTSFd	77.5 %		
Level of Service and Other Perform	ance Meas	ures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	4504 31.0 1367 1428	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 39.5 77.5 E	mi mi mi mi/h
Average Travel Speed with Pass	ing Lane_		
Downstream length of two-lane highway within effection length of passing lane for average travel speet Length of two-lane highway downstream of effective	d, Lde	-	mi
length of the passing lane for average travel Adj. factor for the effect of passing lane on average speed, fpl		_	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	FSpl	- 0.0	8
Percent Time-Spent-Following with	Passing L	ane	
Downstream length of two-lane highway within effective of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	_	mi
the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane on percent time-spent-following, fpl		_	mi
Percent time-spent-following including passing lane, PTSFpl		_	%
Level of Service and Other Performance Measu	res with	Passing I	lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E 	veh-h	
Bicycle Level of Servic	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
5,	3
Flow rate in outside lane, vOL	612.0
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.64
Bicycle LOS	F

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		Fax:				
Direct	ional Two-Lane	Highway S	Segment .	Analysi	is	
Analyst Agency/Co. Date Performed Analysis Time Period Highway From/To Jurisdiction Analysis Year Description Cool Dolla	SR 49 SR 193 TO COLO Caltrans 2019 PLUS DOLI		ΑL			
	Inpu	ıt Data				
Segment length 8. Terrain type Ro Grade: Length - Up/down -	0 ft % 0 mi Tr 0lling % mi % Ac	Trucks ar Trucks cr ruck crawl Recreation No-passir cess poir	nd buses cawling speed onal veh ng zones	icles	0.92 6 0.0 0.0 4 100	% % mi/hr % % /mi
Analysis direction volu Opposing direction volu						
	Average Tr	avel Spee	ed			
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor,(note Directional flow rate,(or,(note-5) fHV -1) fg	Analysis (posing (2.1 1.1 0.935 0.82 374	o) pc/h
Free-Flow Speed from Fi Field measured speed,(n Observed total demand,(Estimated Free-Flow Spe Base free-flow speed,(n Adj. for lane and shoul Adj. for access point d	ote-3) S FM note-3) V ed: ote-3) BFFS der width,(note	e-3) fLS	- - 55.0 2.6 2.0	mi/h veh/h mi/h mi/h mi/h		
Free-flow speed, FFSd			50.4	mi/h		
Adjustment for no-passi Average travel speed, A Percent Free Flow Speed	ATSd		2.9 42.0 83.4	mi/h mi/h %		

Percent Time-Spent-Followi	.ng		
Direction Analysis(d) PCE for trucks, ET 1.7 PCE for RVs, ER 1.0 Heavy-vehicle adjustment factor, fHV 0.960 Grade adjustment factor, (note-1) fg 0.82 Directional flow rate, (note-2) vi 307 pc Base percent time-spent-following, (note-4) BPTSFd	c/h 34.3	Opposing 1.7 1.0 0.960 0.84 356	pc/h
Adjustment for no-passing zones, fnp	52.2	•	
Percent time-spent-following, PTSFd	58.5	%	
Level of Service and Other Performa	ance Mea	asures	
Level of service, LOS	D		
Volume to capacity ratio, v/c	0.20		
Peak 15-min vehicle-miles of travel, VMT15	483	veh-mi	
Peak-hour vehicle-miles of travel, VMT60	1776	veh-mi	
Peak 15-min total travel time, TT15	11.5	veh-h	
Capacity from ATS, CdATS	1390	veh/h	
Capacity from PTSF, CdPTSF	1444	veh/h	
Directional Capacity	1390	veh/h	
Passing Lane Analysis_			
Passing Dame Analysis_			
Total length of analysis segment, Lt		8.0	mi
Length of two-lane highway upstream of the passing	lane, I	Lu -	mi
Length of passing lane including tapers, Lpl		-	mi
Average travel speed, ATSd (from above)		42.0	mi/h
Percent time-spent-following, PTSFd (from above)		58.5	
Level of service, LOSd (from above)		D	
Average Travel Speed with Passi	ng Lane	e	
Downstream length of two-lane highway within effect	1770		
length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi
length of the passing lane for average travel s Adj. factor for the effect of passing lane	speed, I	id -	mi
on average speed, fpl		_	
Average travel speed including passing lane, ATSpl		_	
Percent free flow speed including passing lane, PFF	Spl	0.0	%
Percent Time-Spent-Following with F	assing	Lane	
Downstream length of two-lane highway within effect	ivo lor	agth	
of passing lane for percent time-spent-following			mi
Length of two-lane highway downstream of effective		of	шт
the passing lane for percent time-spent-followi		-	mi
Adj. factor for the effect of passing lane	.119, La		шт
on percent time-spent-following, fpl		_	
Percent time-spent-following			
including passing lane, PTSFpl		_	%
Level of Service and Other Performance Measur	es with	n Passing T	ane
	. C.D WILL		
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Service	<u> </u>		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
5,	241 2
Flow rate in outside lane, vOL	241.3
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.17
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		Fax:				
Direct	ional Two-Lane F	Highway S	Segment .	Analys	is	
Analyst Agency/Co. Date Performed Analysis Time Period Highway From/To Jurisdiction Analysis Year Description Cool Dolla	SR 49 SR 193 TO COLON Caltrans 2019 PLUS DOLLA		$\Delta { m L}$			
	Input	Data				
Segment length 8. Terrain type Ro	0 ft % Tru Illing % F	Trucks and Trucks controls and the creation of	nd buses rawling l speed onal veh	icles	0.92 6 0.0 0.0 4 100	% % mi/hr % % /mi
Analysis direction volu Opposing direction volu						
	Average Tra	avel Spe	ed			
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor,(note Directional flow rate,(or,(note-5) fHV	Analysis 2.1 1.1 0.939 0.82 374	5		posing (2.2 1.1 0.929 0.78 333	o) pc/h
Free-Flow Speed from Fi Field measured speed, (n Observed total demand, (Estimated Free-Flow Speeds for lane and shoul Adj. for access point defined free-flow speed, FFSd	ote-3) S FM note-3) V ed: ote-3) BFFS der width,(note-	-3) fLS	- - 55.0 2.6 2.0	mi/h veh/h mi/h mi/h mi/h mi/h		
Adjustment for no-passi Average travel speed, A Percent Free Flow Speed	TSd		3.1 41.8 82.9	mi/h mi/h %		

Percent Time-Spent-Followi	.ng		
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	:/h 37.3 52.2	Opposing 1.7 1.0 0.960 0.82 307	(o) pc/h
Level of Service and Other Performa	nce Mea	sures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	D 0.22 574 2112 13.7 1319 1395 1319	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane Analysis_			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, L	8.0 u - - 41.8 65.3 D	mi mi mi mi/h
Average Travel Speed with Passi	ng Lane		
Downstream length of two-lane highway within effect			
length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi
<pre>length of the passing lane for average travel s Adj. factor for the effect of passing lane on average speed, fpl</pre>	speed, L	d -	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFF	Spl	- 0.0	%
Percent Time-Spent-Following with F	assing	Lane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	_	mi
the passing lane for percent time-spent-followi Adj. factor for the effect of passing lane on percent time-spent-following, fpl		-	mi
Percent time-spent-following including passing lane, PTSFpl		-	%
Level of Service and Other Performance Measur	es with	Passing 1	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Service	<u></u>		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
3 ,	3
Flow rate in outside lane, vOL	287.0
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.25
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fa E-Mail:	ax:						
Directional Two-Lane High	hway Segment Analysis						
Directional Two-Lane Highway Segment Analysis Analyst kda Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 193 From/To SR 49 TO GEORGETOWN Jurisdiction Caltrans Analysis Year 2019 PLUS DOLLAR GENEAL Description Cool Dollar General							
Input Da	ata						
Shoulder width 2.0 ft % Truck Lane width 12.0 ft % Truck Segment length 8.0 mi Truck Terrain type Rolling % Recr Grade: Length - mi % No-p	hour factor, PHF 0.92 cks and buses 6 % cks crawling 0.0 % crawl speed 0.0 mi/hr reational vehicles 4 % passing zones 100 % s point density 8 /mi						
Analysis direction volume, Vd 475 veh Opposing direction volume, Vo 209 veh							
Average Travel	1 Speed						
PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. factor,(note-5) fHV	lysis(d) Opposing (o) 1.8 2.2 1.1 1.1 0.951 0.929 0.95 0.77 571 pc/h 318 pc/h						
Free-Flow Speed from Field Measurement: Field measured speed,(note-3) S FM Observed total demand,(note-3) V Estimated Free-Flow Speed: Base free-flow speed,(note-3) BFFS Adj. for lane and shoulder width,(note-3) Adj. for access point density,(note-3) fA Free-flow speed, FFSd							
Adjustment for no-passing zones, fnp Average travel speed, ATSd Percent Free Flow Speed, PFFS	3.2 mi/h 40.3 mi/h 79.9 %						

Percent Time	-Spent-Follow	ing		
Direction	Analysis(d)		Opposing	(0)
PCE for trucks, ET	1.2		1.7	(0)
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	0.988		0.960	
Grade adjustment factor, (note-1) fg	0.96		0.81	
Directional flow rate, (note-2) vi		c/h	292	pc/h
Base percent time-spent-following, (no	-		%	pc/11
Adjustment for no-passing zones, fnp	ce-4) bristu	35.0	6	
Percent time-spent-following, PTSFd			ે	
	0+h D			
Level of Service and	Other Periorm	ance Mea	sures	
Level of service, LOS		D		
Volume to capacity ratio, v/c		0.34		
Peak 15-min vehicle-miles of travel,	VMT15	1033	veh-mi	
Peak-hour vehicle-miles of travel, VM	T60	3800	veh-mi	
Peak 15-min total travel time, TT15		25.7	veh-h	
Capacity from ATS, CdATS		1303	veh/h	
Capacity from PTSF, CdPTSF		1387	veh/h	
Directional Capacity		1303	veh/h	
	Iana Analusia			
Passing	Lane Analysis			
Total length of analysis segment, Lt			8.0	mi
Length of two-lane highway upstream o	f the passing	lane, L	u –	mi
Length of passing lane including tape	rs, Lpl		_	mi
Average travel speed, ATSd (from abov	e)		40.3	mi/h
Percent time-spent-following, PTSFd (from above)		73.9	
Level of service, LOSd (from above)	,		D	
Average Travel Spe	ed with Pass	ing Lane	:	
Downstream length of two-lane highway				
length of passing lane for averag			_	mi
Length of two-lane highway downstream				
length of the passing lane for av		speed, L	id -	mi
Adj. factor for the effect of passing	lane			
on average speed, fpl			_	
Average travel speed including passing	g lane, ATSpl		_	
Percent free flow speed including pas	sing lane, PF	FSpl	0.0	રુ
Percent Time-Spent-Fo	llowing with	Passing	Lane	
Downstream length of two-lane highway			gth.	
of passing lane for percent time-			-	mi
Length of two-lane highway downstream	of effective	length	of	
the passing lane for percent time	-spent-follow	ing, Ld	_	mi
Adj. factor for the effect of passing	lane			
on percent time-spent-following,			_	
Percent time-spent-following				
including passing lane, PTSFpl				90
Level of Service and Other Perf	ormance Measu	res with	Passing	Lane
Level of service including passing la	ne. LOSpl	E		
Peak 15-min total travel time, TT15	, _OOP1	_	veh-h	
			· - 	
Bicycle Le	vel of Servic	e		

Posted speed limit, Sp	55
	-
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	516.3
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.55
Bicycle LOS	F

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Directional Two-Lane Highway Segment Analysis Analyst kda Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 193 From/To SR 49 TO GEORGETOWN Jurisdiction Caltrans Analysis Year 2019 PLUS DOLLAR GENEAL Description Cool Dollar General	Phone: E-Mail:		Fax:				
Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 193 From/TO SR 49 TO GEORGETOWN Jurisdiction Caltrans Analysis Year 2019 PLUS DOLLAR GENEAL Description Cool Dollar General Input Data Highway class Class 1 Peak hour factor, PHF 0.92 Shoulder width 2.0 ft % Trucks and buses 6 % Lane width 12.0 ft % Trucks crawling 0.0 % Segment length 12.0 ft % Trucks crawling 0.0 mi/hr Terrain type Rolling % Recreational vehicles 4 % Grade: Length — mi % No-passing zones 100 % Up/down — % Access point density 8 /mi Analysis direction volume, Vd 209 veh/h Opposing direction volume, Vd 475 veh/h Average Travel Speed Direction Analysis(d) Opposing (o) PCE for trucks, ET 2.2 1.8 PCE for RVs, ER 1.1 1.1 Heavy-vehicle adj. factor,(note-5) fHV 0.929 0.951 Grade adj. factor.(note-1) fg 0.77 0.95 Directional flow rate,(note-2) vi 318 pc/h 571 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) SFM — mi/h Observed total demand, (note-3) V — veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fLS 2.0 mi/h Adj. for access point density, (note-3) fLS 2.0 mi/h Adj. for access point density, (note-3) fLS 2.0 mi/h Adj. for access point density, (note-3) fLS 2.0 mi/h Adj. for access point density, (note-3) fLS 2.0 mi/h Adj. for access point density, (note-3) fLS 2.0 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	Direc	tional Two-La	ne Highway	Segment	Analys	is	
Date Performed 3/9/20/20 Analysis Time Period PM Peak Highway SR 193 From To SR 49 TO GEORGETOWN Jurisdiction Caltrans Analysis Year 2019 PLUS DOLLAR GENEAL Description Cool Dollar General	_	kda					
Analysis Time Period PM Peak Highway SR 193 From/To SR 49 TO GEORGETOWN Jurisdiction Caltrans Analysis Year 2019 PLUS DOLLAR GENEAL Description Cool Dollar General		2/0/2020					
Highway							
From/To	_						
Jurisdiction Caltrans Analysis Year 2019 PLUS DOLLAR GENEAL Description Cool Dollar General Input Data Highway class Class 1 Peak hour factor, PHF 0.92 Shoulder width 2.0 ft % Trucks and buses 6 % Lane width 12.0 ft % Trucks crawling 0.0 % Segment length 8.0 mi Truck crawl speed 0.0 mi/hr Terrain type Rolling % Recreational vehicles 4 % Grade: Length - mi % No-passing zones 100 % Up/down - % Access point density 8 /mi Analysis direction volume, Vd 209 veh/h Opposing direction volume, Vo 475 veh/h Average Travel Speed Direction Analysis(d) Opposing (o) PCE for trucks, ET 2.2 1.8 PCE for RVs, ER 1.1 1.1 Heavy-vehicle adj. factor, (note-5) fHV 0.929 0.951 Grade adj. factor, (note-1) fg 0.77 0.95 Directional flow rate, (note-2) vi 318 pc/h 571 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM - mi/h Observed total demand, (note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed; Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	-		ORGETOWN				
Analysis Year			onon 10 min				
Description Cool Dollar General			OLLAR GENE	AL			
Highway class Class 1	_						
Shoulder width 2.0 ft % Trucks and buses 6 % Lane width 12.0 ft % Trucks crawling 0.0 % Segment length 8.0 mi Truck crawl speed 0.0 mi/hr Terrain type Rolling % Recreational vehicles 4 % Grade: Length - mi % No-passing zones 100 % Up/down - % Access point density 8 /mi Analysis direction volume, Vd 209 veh/h Opposing direction volume, Vo 475 veh/h Average Travel Speed Direction Analysis(d) Opposing (o) PCE for trucks, ET 2.2 1.8 PCE for RVs, ER 1.1 1.1 Heavy-vehicle adj. factor,(note-5) fHV 0.929 0.951 Grade adj. factor,(note-1) fg 0.77 0.95 Directional flow rate,(note-2) vi 318 pc/h 571 pc/h Free-Flow Speed from Field Measurement: Field measured speed,(note-3) S FM - mi/h Observed total demand,(note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width,(note-3) fLS 2.6 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h		I	nput Data_				
Shoulder width 2.0 ft % Trucks and buses 6 % Lane width 12.0 ft % Trucks crawling 0.0 % Segment length 8.0 mi Truck crawl speed 0.0 mi/hr Terrain type Rolling % Recreational vehicles 4 % Grade: Length - mi % No-passing zones 100 % Up/down - % Access point density 8 /mi Analysis direction volume, Vd 209 veh/h Opposing direction volume, Vo 475 veh/h Average Travel Speed Direction Analysis(d) Opposing (o) PCE for trucks, ET 2.2 1.8 PCE for RVs, ER 1.1 1.1 Heavy-vehicle adj. factor,(note-5) fHV 0.929 0.951 Grade adj. factor,(note-1) fg 0.77 0.95 Directional flow rate,(note-2) vi 318 pc/h 571 pc/h Free-Flow Speed from Field Measurement: Field measured speed,(note-3) S FM - mi/h Observed total demand,(note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width,(note-3) fLS 2.6 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	Highway alogg Class 1		Dook hours	faatas	חחב	0 02	
Lane width 12.0 ft % Trucks crawling 0.0 % Segment length 8.0 mi Truck crawl speed 0.0 mi/hr Terrain type Rolling % Recreational vehicles 4 % Grade: Length - mi % No-passing zones 100 % Up/down - % Access point density 8 /mi Analysis direction volume, Vd 209 veh/h Opposing direction volume, Vo 475 veh/h Average Travel Speed Direction Analysis(d) Opposing (o) PCE for trucks, ET 2.2 1.8 PCE for RVs, ER 1.1 1.1 Heavy-vehicle adj. factor,(note-5) fHV 0.929 0.951 Grade adj. factor,(note-1) fg 0.77 0.95 Directional flow rate,(note-2) vi 318 pc/h 571 pc/h Free-Flow Speed from Field Measurement: Field measured speed,(note-3) S FM - mi/h Observed total demand,(note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed,(note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width,(note-3) fLS 2.6 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h							o,
Segment length 8.0 mi Truck crawl speed 0.0 mi/hr Terrain type Rolling % Recreational vehicles 4 % Grade: Length - mi % No-passing zones 100 % Up/down - % Access point density 8 /mi Analysis direction volume, Vd 209 veh/h Opposing direction volume, Vo 475 veh/h Average Travel Speed Direction Analysis(d) Opposing (o) PCE for trucks, ET 2.2 1.8 PCE for RVs, ER 1.1 1.1 Heavy-vehicle adj. factor,(note-5) fHV 0.929 0.951 Grade adj. factor,(note-1) fg 0.77 0.95 Directional flow rate,(note-2) vi 318 pc/h 571 pc/h Free-Flow Speed from Field Measurement: Field measured speed,(note-3) S FM - mi/h Observed total demand,(note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed,(note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width,(note-3) fLS 2.6 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h							
Terrain type Rolling % Recreational vehicles 4 % Grade: Length - mi % No-passing zones 100 % Up/down - % Access point density 8 /mi Analysis direction volume, Vd 209 veh/h Opposing direction volume, Vo 475 veh/h							
Grade: Length - mi % No-passing zones 100 %				_			/
Up/down - % Access point density 8 /mi Analysis direction volume, Vd 209 veh/h Opposing direction volume, Vo 475 veh/h Average Travel Speed Direction Analysis(d) Opposing (o) PCE for trucks, ET 2.2 1.8 PCE for RVs, ER 1.1 1.1 Heavy-vehicle adj. factor, (note-5) fHV 0.929 0.951 Grade adj. factor, (note-1) fg 0.77 0.95 Directional flow rate, (note-2) vi 318 pc/h 571 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM - mi/h Observed total demand, (note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h							
Opposing direction volume, Vo 475 veh/h							•
PCE for trucks, ET PCE for RVs, ER 1.1 Heavy-vehicle adj. factor,(note-5) fHV O.929 O.951 Grade adj. factor,(note-1) fg O.77 O.95 Directional flow rate,(note-2) vi Tree-Flow Speed from Field Measurement: Field measured speed,(note-3) S FM - mi/h Observed total demand,(note-3) V Estimated Free-Flow Speed: Base free-flow speed,(note-3) BFFS Base free-flow speed,(note-3) BFFS To mi/h Adj. for lane and shoulder width,(note-3) fLS To mi/h Adj. for access point density,(note-3) fA Tree-flow speed, FFSd To mi/h Adjustment for no-passing zones, fnp Adjustment for no-passing zones, fnp Adjustment speed, ATSd To no-passing zones, fnp D. 1.8 1.1 1.1 1.1 1.1 1.1 1.1 1.1		ume, Vo 475	veh/h	eed			
PCE for trucks, ET PCE for RVs, ER 1.1 Heavy-vehicle adj. factor,(note-5) fHV O.929 O.951 Grade adj. factor,(note-1) fg O.77 O.95 Directional flow rate,(note-2) vi Tree-Flow Speed from Field Measurement: Field measured speed,(note-3) S FM - mi/h Observed total demand,(note-3) V Estimated Free-Flow Speed: Base free-flow speed,(note-3) BFFS Base free-flow speed,(note-3) BFFS Adj. for lane and shoulder width,(note-3) fLS Free-flow speed, FFSd 50.4 Mi/h Adjustment for no-passing zones, fnp Adjustment for no-passing zones, fnp Adjustment speed, ATSd 2.2 1.8 1.1 1.1 1.1 1.1 1.1 1.1	Direction		Analysi	g (d)	On	noging	(0)
PCE for RVs, ER Heavy-vehicle adj. factor,(note-5) fHV 0.929 0.951 Grade adj. factor,(note-1) fg 0.77 Directional flow rate,(note-2) vi 318 pc/h Free-Flow Speed from Field Measurement: Field measured speed,(note-3) S FM Observed total demand,(note-3) V Estimated Free-Flow Speed: Base free-flow speed,(note-3) BFFS Adj. for lane and shoulder width,(note-3) fLS for access point density,(note-3) fA Adjustment for no-passing zones, fnp Adjustment for no-passing zones, fnp Average travel speed, ATSd 1.1 1.1 0.951 0.955 0.95 571 pc/h Fill Call Call Call Call Call Call Call C					Op		(0)
Heavy-vehicle adj. factor, (note-5) fHV 0.929 0.951 Grade adj. factor, (note-1) fg 0.77 0.95 Directional flow rate, (note-2) vi 318 pc/h 571 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM - mi/h Observed total demand, (note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h							
Grade adj. factor, (note-1) fg 0.77 0.95 Directional flow rate, (note-2) vi 318 pc/h 571 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM - mi/h Observed total demand, (note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	•	tor.(note-5)					
Directional flow rate, (note-2) vi 318 pc/h 571 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM - mi/h Observed total demand, (note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h							
Field measured speed, (note-3) S FM - mi/h Observed total demand, (note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h		_			1		pc/h
Field measured speed, (note-3) S FM - mi/h Observed total demand, (note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	Free-Flow Speed from F	'ield Measurem	ent:				
Observed total demand, (note-3) V - veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	-			_	mi/h		
Estimated Free-Flow Speed: Base free-flow speed,(note-3) BFFS 55.0 mi/h Adj. for lane and shoulder width,(note-3) fLS 2.6 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	_			_			
Adj. for lane and shoulder width, (note-3) fLS 2.6 mi/h Adj. for access point density, (note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	Estimated Free-Flow Sp	eed:					
Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	Base free-flow speed, (note-3) BFFS		55.0	mi/h		
Free-flow speed, FFSd 50.4 mi/h Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	Adj. for lane and shou	lder width,(n	ote-3) fLS	2.6	mi/h		
Adjustment for no-passing zones, fnp 2.0 mi/h Average travel speed, ATSd 41.5 mi/h	Adj. for access point	density,(note	-3) fA	2.0	mi/h		
Average travel speed, ATSd 41.5 mi/h	Free-flow speed, FFSd			50.4	mi/h		
Average travel speed, ATSd 41.5 mi/h	Adjustment for no-pass	ing zones. fn		2.0	mi/h		
	_		·Ŀ				
				82.3	8		

Percent Time-Spent-Followi	ing		
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	c/h 36.6 35.0 48.8	Opposing 1.2 1.0 0.988 0.96 544	(o) pc/h
Level of Service and Other Performa	ance Me	asures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	D 0.19 454 1672 10.9 1552 1613 1552		
Passing Lane Analysis_			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane,	8.0 Lu - - 41.5 48.8 D	mi mi mi mi/h
Average Travel Speed with Passi	ing Lan	e	
Downstream length of two-lane highway within effect length of passing lane for average travel speed Length of two-lane highway downstream of effective length of the passing lane for average travel s Adj. factor for the effect of passing lane on average speed, fpl Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFF	cive d, Lde speed,	-	mi mi %
Percent Time-Spent-Following with F	assing	Lane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde length	- of	mi
the passing lane for percent time-spent-followi Adj. factor for the effect of passing lane on percent time-spent-following, fpl Percent time-spent-following	ing, Ld	-	mi
including passing lane, PTSFpl		_	%
Level of Service and Other Performance Measur	res wit	h Passing I	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Service	<u> </u>		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	227.2
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.14
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		F	ax:				
Direc	tional Two-La	ne Hig	hway	Segment	Analys	is	
Analyst Agency/Co.	kda						
Date Performed Analysis Time Period	3/9/2020 PM Peak						
Highway	SR 49						
From/To	Auburn to S	SR 193					
Jurisdiction	Caltrans						
Analysis Year	2040						
Description Cool Doll	ar General						
	I	input D	ata				
Highway class Class 1		Peak	hour	factor,	PHF	0.92	
Shoulder width 2				nd buses		6	%
				rawling		0.0	8
Segment length 8				l speed onal veh		0.0 4	mi/hr
Terrain type R Grade: Length -	orring mi			onai ven ng zones		100	% %
Up/down -	_		_	nt densi		8	/mi
Analysis direction vol		ve	h/h	ed			
Direction		Ana	lysis	(d)	r a 0	posing (0)
PCE for trucks, ET			1.9			1.4	•
PCE for RVs, ER			1.1			1.1	
Heavy-vehicle adj. fac		fHV				0.973	
Grade adj. factor, (not Directional flow rate,	_		0.93 526			0.99 829	pc/h
Directional flow rate,	(HOCE-Z) VI		J 2 0	pc/II	•	029	pc/II
Free-Flow Speed from F		nent:			m - 1 / la		
Field measured speed, () Observed total demand,				_	mi/h veh/h		
Estimated Free-Flow Sp					V C117 11		
Base free-flow speed, (55.0	mi/h		
Adj. for lane and shou				2.6	mi/h		
Adj. for access point	density,(note	e-3) fA		2.0	mi/h		
Free-flow speed, FFSd				50.4	mi/h		
Adjustment for no-pass	ing zones, fn	ıp		1.3	mi/h		
Average travel speed,		_		38.6	mi/h		
Percent Free Flow Spee	d, PFFS			76.6	%		

Percent Time-Spen	-Following		
PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV	ysis(d) L.4 L.0).977).94	Opposing 1.0 1.0 1.000	
Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	27.9	799 % %	pc/h
Level of Service and Other	Performance Mea	sures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	E 0.31 924 3400 23.9 1638 1700 1638	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane 2	Analysis		
Total length of analysis segment, Lt Length of two-lane highway upstream of the Length of passing lane including tapers, Lp Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	ol	8.0 u - - 38.6 65.9 E	mi mi mi mi/h
Average Travel Speed w	ith Passing Lane		
Downstream length of two-lane highway with length of passing lane for average trade Length of two-lane highway downstream of expensions.	vel speed, Lde	-	mi
<pre>length of the passing lane for average Adj. factor for the effect of passing lane on average speed, fpl</pre>	travel speed, L	d - -	mi
Average travel speed including passing land Percent free flow speed including passing		0.0	%
Percent Time-Spent-Following	ng with Passing	Lane	
Downstream length of two-lane highway with of passing lane for percent time-spent. Length of two-lane highway downstream of expenses.	-following, Lde	_	mi
the passing lane for percent time-spendadj. factor for the effect of passing lane on percent time-spent-following, fpl		-	mi
Percent time-spent-following including passing lane, PTSFpl		_	%
Level of Service and Other Performan	ce Measures with	Passing	Lane
Level of service including passing lane, Lo Peak 15-min total travel time, TT15	OSpl E -	veh-h	
Bicycle Level or	Service		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	462.0
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.50
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		F	ax:				
Direct	cional Two-La	ne Hig	hway :	Segment	Analys	is	
Analyst Agency/Co.	kda						
Date Performed	3/9/2020						
Analysis Time Period	PM Peak SR 49						
Highway From/To	Auburn to S	r 193					
Jurisdiction	Caltrans	1 100					
Analysis Year	2040						
Description Cool Dolla	ar General						
	I	nput D	ata				
Highway class Class 1		Peak	hour	factor,	PHF	0.92	
Shoulder width 2				nd buses		6	%
Lane width 12	2.0 ft	% Tru	cks c	rawling		0.0	%
Segment length 8				l speed		0.0	mi/hr
Terrain type Ro				onal veh		4	%
Grade: Length - Up/down -	mi %		_	ng zones nt densi		100 8	% /mi
op/ down	0	ACCES	s por	ic delisi	. с у	O	/ III 1
Analysis direction volu Opposing direction volu							
	Average	Trave	l Spe	ed			
Direction		Ana	lysis	(d)	·a0	posing (0)
PCE for trucks, ET			1.4			1.9	,
PCE for RVs, ER			1.1			1.1	
Heavy-vehicle adj. fact		fHV				0.945	
Grade adj. factor,(note Directional flow rate,	_		0.99 829	pc/h	,	0.93 526	pc/h
Directional flow face,	(IIOCE-Z) VI		049	pc/II	L	320	pc/II
Free-Flow Speed from F		ent:					
Field measured speed, (1				-	mi/h		
Observed total demand, Estimated Free-Flow Spe				-	veh/h		
Base free-flow speed, (55.0	mi/h		
Adj. for lane and should		ote-3)	fLS	2.6	mi/h		
Adj. for access point of	density,(note	-3) fA		2.0	mi/h		
Free-flow speed, FFSd				50.4	mi/h		
Adjustment for no-pass:	ina zones fr	p		2.2	mi/h		
Average travel speed, A		·Ľ		37.7	mi/h		
Percent Free Flow Speed				74.8	%		

Percent Time	-Spent-Follow	ing		
Direction	Analysis(d)	(Opposing	(0)
PCE for trucks, ET	1.0		1.4	(0)
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	1.000		0.977	
Grade adjustment factor, (note-1) fg	1.00		0.94	
Directional flow rate, (note-2) vi		c/h	503	pc/h
Base percent time-spent-following, (no	-		303 %	pc/II
	te-4/ brista		ō	
Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd		27.9 84.4	26	
	Ollhan Banfan			
Level of Service and	Otner Periorm	ance Meas	sures	
Level of service, LOS		E		
Volume to capacity ratio, v/c		0.49		
Peak 15-min vehicle-miles of travel,	VMT15	1598	veh-mi	
Peak-hour vehicle-miles of travel, VM	T60	5880	veh-mi	
Peak 15-min total travel time, TT15		42.4	veh-h	
Capacity from ATS, CdATS		1536	veh/h	
Capacity from PTSF, CdPTSF		1613	veh/h	
Directional Capacity		1536	veh/h	
	T		·	
Passing	Lane Analysis			
Total length of analysis segment, Lt			8.0	mi
Length of two-lane highway upstream o	f the passing	lane, Lu	u –	mi
Length of passing lane including tape			_	mi
Average travel speed, ATSd (from abov			37.7	mi/h
Percent time-spent-following, PTSFd (84.4	
Level of service, LOSd (from above)	IIOm above,		E	
	and the Down	.	_	
Average Travel Spe	ed with Pass	ing Lane ₋		
Downstream length of two-lane highway				
length of passing lane for averag	_		-	mi
Length of two-lane highway downstream	of effective			
length of the passing lane for av	erage travel	speed, Lo	d –	mi
Adj. factor for the effect of passing	lane			
on average speed, fpl			_	
Average travel speed including passin	g lane, ATSpl		_	
Percent free flow speed including pas			0.0	%
	-	_		
Percent Time-Spent-Fo	llowing with	Passing I	Lane	
Downstream length of two-lane highway	within effec	tive leng	gth	
of passing lane for percent time-	spent-followi	ng, Lde	-	mi
Length of two-lane highway downstream	_		of	
the passing lane for percent time			_	mi
Adj. factor for the effect of passing		5,4		
on percent time-spent-following,			_	
	-5-		-	
Percent time-spent-following including passing lane, PTSFpl			-	%
Level of Service and Other Perf	ormance Measu	res with	Passing	Lane
		_		
Level of service including passing la	ne, LOSpl	E	_	
Peak 15-min total travel time, TT15		-	veh-h	
Bicycle Le	vel of Servic	e		
				

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	798.9
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.77
Bicycle LOS	F

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		Fax:				
Direct	ional Two-Lane	Highway S	Segment	Analys	is	
Analyst Agency/Co. Date Performed Analysis Time Period Highway From/To Jurisdiction Analysis Year Description Cool Dolla	kda 3/9/2020 PM Peak SR 49 SR 193 TO COLO Caltrans 2040			-		
	Inpu	ıt Data				
Lane width 12 Segment length 8. Terrain type Sp Grade: Length 0.	0 ft % 0.0 ft % 0 mi Tr eccific Grade % 25 mi % 0 % Ac	eak hour in Trucks and Trucks crawding Recreation No-passing ccess point weh/h	nd buses rawling l speed onal veh ng zones	icles	0.92 6 0.0 0.0 4 100	% % mi/hr % % /mi
Opposing direction volu	.me, vo 330	ven/n				
	Average Tr	cavel Spee	ed			
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor,(note Directional flow rate,(:-1) fg	Analysis 2.2 1.0 7 0.930 0.89 427	0		posing (1.3 1.0 0.982 1.00 365	o) pc/h
Free-Flow Speed from Fi Field measured speed,(n Observed total demand,(Estimated Free-Flow Spe Base free-flow speed,(n Adj. for lane and shoul Adj. for access point d	ote-3) S FM note-3) V ed: ote-3) BFFS der width,(note	e-3) fLS	- - 55.0 2.6 2.0	mi/h veh/h mi/h mi/h mi/h		
Free-flow speed, FFSd			50.4	mi/h		
Adjustment for no-passi Average travel speed, A Percent Free Flow Speed	TSd		2.9 41.3 82.0	mi/h mi/h %		

Percent Time	-Spent-Follow	ing		
Direction	Analysis(d)	()pposing	(0)
PCE for trucks, ET	1.0		1.1	(0)
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	1.000		0.994	
Grade adjustment factor, (note-1) fg	0.96		1.00	
Directional flow rate, (note-2) vi		c/h	361	pc/h
Base percent time-spent-following, (no	_			pc/II
Adjustment for no-passing zones, fnp	ce-4) brista	50.2)	
Percent time-spent-following, PTSFd		64.2	<u>.</u>	
Level of Service and	Other Perform	ance Meas	sures	
Level of service, LOS		D		
Volume to capacity ratio, v/c		0.25		
Peak 15-min vehicle-miles of travel,	VMT15	707	veh-mi	
Peak-hour vehicle-miles of travel, VM		2600	veh-mi	
Peak 15-min total travel time, TT15		17.1	veh-h	
Capacity from ATS, CdATS		1409	veh/h	
Capacity from PTSF, CdPTSF		1639	veh/h	
Directional Capacity		1409	veh/h	
Directional capacity		1100	V C11/ 11	
Passing	Lane Analysis			
Total length of analysis segment, Lt			8.0	mi
Length of two-lane highway upstream o	f the passing	lane Li		mi
Length of passing lane including tape		idiic, id	_	mi
Average travel speed, ATSd (from abov			41.3	mi/h
Percent time-spent-following, PTSFd (64.2	1111
	IIOm above)		04.2 D	
Level of service, LOSd (from above)			ט	
Average Travel Spe	ed with Pass	ing Lane_		
Downstream length of two-lane highway	within effec	tive		
length of passing lane for averag			_	mi
Length of two-lane highway downstream	_			шт
			1	4
length of the passing lane for av		speed, Lo	1 –	mi
Adj. factor for the effect of passing	lane			
on average speed, fpl			_	
Average travel speed including passin			_	_
Percent free flow speed including pas	sing lane, PF	FSpl	0.0	%
Percent Time-Spent-Fo	llowing with	Passing I	ane	
Downstream length of two-lane highway	within offer	tive lend	rth	
of passing lane for percent time-				mi
	_		_	шт
Length of two-lane highway downstream			JΙ	
the passing lane for percent time		ıng, La	_	mi
Adj. factor for the effect of passing				
on percent time-spent-following,	tpl		_	
Percent time-spent-following				
including passing lane, PTSFpl			_	%
Level of Service and Other Perf	ormance Measu	res with	Passing	Lane
Level of service including passing la	ne I.Osni	E		
Peak 15-min total travel time, TT15	пе, поврт	<u>.</u>	veh-h	
rean 13-min cocar craver cime, 1115		_	∧ ∈11_11	
Bicycle Le	vel of Servic	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
5.	3
Flow rate in outside lane, vOL	353.3
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.36
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		F	ax:				
Dire	ctional Two-La	ne Hig	hway S	Segment .	Analys	is	
Analyst	kda						
Agency/Co. Date Performed	3/9/2020						
Analysis Time Period	PM Peak						
Highway	SR 49						
From/To Jurisdiction	SR 193 TO CO	OLOMA					
Analysis Year							
Description Cool Dol							
		nput Da	ata				
Highway class Class	1	Deals 1	hour	factor,	חשה	0.92	
				nd buses		6	%
				rawling		0.0	%
Segment length	8.0 mi	Truck	craw	l speed		0.0	mi/hr
Terrain type	Specific Grade	% Rec	reatio	onal veh	icles	4	%
2	0.25 mi 3.0 %			ng zones nt densi		100 8	% /mi
Analysis direction vo Opposing direction vo			h/h h/h				
	Average	Trave	l Spe	ed			
Direction		Ana	lysis	(d)	0pj	posing (0)
PCE for trucks, ET			2.2			1.3	
PCE for RVs, ER	/ F)	£ 1117	1.0	1		1.0	
Heavy-vehicle adj. fagrade adj. factor, (no		IHV	0.933			0.982 1.00	
Directional flow rate	_		433			360	pc/h
Free-Flow Speed from Field measured speed, Observed total demand	(note-3) S FM ,(note-3) V	ent:		- -	mi/h veh/h		
Estimated Free-Flow S				FF 0	¹ /1-		
Base free-flow speed, Adj. for lane and sho		ote-3)	fī.g	55.0 2.6	mi/h mi/h		
Adj. for access point				2.0	mi/h		
Free-flow speed, FFSd				50.4	mi/h		
Adjustment for no-pass	sing zones, fn	р		3.0	mi/h		
Average travel speed,		-		41.3	mi/h		
Percent Free Flow Spe	ed, PFFS			81.9	%		

Percent Time-Spent-Followi	ng		
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	c/h 39.6 50.2 65.3	Opposing 1.1 1.0 0.994 1.00 355 %	(o) pc/h
Level of Service and Other Performa	ance Mea	asures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	D 0.25 717 2640 17.4 1407 1640 1407	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane Analysis_			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, I	8.0 - - 41.3 65.3 D	mi mi mi mi/h
Average Travel Speed with Passi	ng Lane	2	
Downstream length of two-lane highway within effect length of passing lane for average travel speed Length of two-lane highway downstream of effective length of the passing lane for average travel s Adj. factor for the effect of passing lane on average speed, fpl Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFF	cive d, Lde speed, I	-	mi mi
Percent Time-Spent-Following with F	assing	Lane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde length	_	mi
the passing lane for percent time-spent-followi Adj. factor for the effect of passing lane on percent time-spent-following, fpl Percent time-spent-following	lng, Ld	-	mi
including passing lane, PTSFpl		-	%
Level of Service and Other Performance Measur	res with	n Passing 1	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Service	<u> </u>		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
3 .	5
Flow rate in outside lane, vOL	358.7
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.37
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		F	ax:				
Dire	ctional Two-La	ne Hig	hway S	Segment .	Analys	is	
Analyst Agency/Co.	kda						
Date Performed	3/9/2020						
Analysis Time Period Highway	PM Peak SR 193						
From/To	SR 49 TO GE	ORGETO	WN				
Jurisdiction	Caltrans						
Analysis Year							
Description Cool Dol	lar General						
	I	nput Da	ata				
Highway class Class	1	Peak l	hour i	factor,	PHF	0.92	
Shoulder width	2.0 ft			nd buses		6	%
				rawling		0.0	%
Segment length	8.0 mi Specific Grade	Truck	craw	l speed		0.0	mi/hr
	0.25 mi	% No-1	nassii	ng zones	icies	4 100	o\ o\
_	3.0 %			nt densi		8	/mi
Analysis direction vo		ve]	h/h	ed			
Direction		Δna	lysis	(b)	Oni	posing (0)
PCE for trucks, ET		11114	1.8	(α)	OP1	1.4	3 /
PCE for RVs, ER			1.0			1.0	
Heavy-vehicle adj. fa		fHV	0.95	4		0.977	
Grade adj. factor,(no Directional flow rate	_		1.00 604	pc/h		1.00 267	pc/h
Directional flow rate	, (110CC 2) VI		004	рс/п		207	pc/II
Free-Flow Speed from Field measured speed,		ent:			mi/h		
Observed total demand				_	weh/h		
Estimated Free-Flow S					,		
Base free-flow speed,				55.0	mi/h		
Adj. for lane and sho				2.6	mi/h		
Adj. for access point	density,(note	-3) IA		2.0	mi/h		
Free-flow speed, FFSd	1			50.4	mi/h		
Adjustment for no-pas	sing zones, fn	р		3.6	mi/h		
Average travel speed,	ATSd			40.1	mi/h		
Percent Free Flow Spe	ed, PFFS			79.5	%		

Percent Time-Spent-Follows	ing		
Base percent time-spent-following, (note-4) BPTSFd	c/h 53.2 %	pposing (1.1 1.0 0.994 1.00 262	o) pc/h
Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	34.2 77.3 %		
Level of Service and Other Performa	ance Measu	ıres	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	4240 v 28.8 v 1348 v 1662 v	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane Analysis_			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 40.1 77.3 D	mi mi mi mi/h
Average Travel Speed with Pass	ing Lane		
Downstream length of two-lane highway within effect length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi
length of the passing lane for average travel s Adj. factor for the effect of passing lane on average speed, fpl	speed, Ld	-	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFF	FSpl	- 0.0	%
Percent Time-Spent-Following with F	Passing La	ane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	_	mi
the passing lane for percent time-spent-follows Adj. factor for the effect of passing lane on percent time-spent-following, fpl	ing, Ld	-	mi
Percent time-spent-following including passing lane, PTSFpl		-	%
Level of Service and Other Performance Measur	res with E	Passing L	ane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	- Z	reh-h	
Bicycle Level of Service	<u> </u>		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
	2
Pavement rating, P	3
Flow rate in outside lane, vOL	576.1
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.61
Bicycle LOS	F

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:							
Direct	tional Two-La	ne Hig	hway S	Segment .	Analys	is	
Analyst kda Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 193 From/To SR 49 TO GEORGETOWN Jurisdiction Caltrans Analysis Year 2040 Description Cool Dollar General							
	I	nput D	ata				
Segment length 8 Terrain type Ro Grade: Length - Up/down -	.0 ft 2.0 ft .0 mi olling mi %	% Truck % Rec: % No-j	cks arcks crawing crawing crawing crawing crawing crassing crassin	factor, and buses cawling l speed onal veh and zones ant densi	icles	0.92 6 0.0 0.0 4 100	% % mi/hr % % /mi
Analysis direction volume Opposing direction volume			h/h h/h				
	Average	Trave	l Spe	ed			
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor,(note Directional flow rate,	e-1) fg		lysis 2.2 1.1 0.929 0.80 351			posing (1.7 1.1 0.956 0.97 621	o) pc/h
Free-Flow Speed from Fifield measured speed, (1) Observed total demand, Estimated Free-Flow Speed, (1) Adj. for lane and should hadj. for access point of the speed of the spe	note-3) S FM (note-3) V eed: note-3) BFFS lder width,(n	ote-3)		- - 55.0 2.6 2.0	mi/h veh/h mi/h mi/h mi/h		
Adjustment for no-pass: Average travel speed, Percent Free Flow Speed	ATSd	p		1.8 41.0 81.4	mi/h mi/h mi/h %		

Percent Time-Spent-Follows	ing		
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd	c/h	posing (1.2 1.0 0.988 0.97 601	o) pc/h
Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	33.3 51.7 %		
Level of Service and Other Performa	ance Measu	ıres	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	1920 v 12.7 v 1576 v 1649 v	reh-mi reh-mi reh-h reh/h reh/h	
Passing Lane Analysis_			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 41.0 51.7 D	mi mi mi mi/h
Average Travel Speed with Passi	ing Lane		
Downstream length of two-lane highway within effect length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi
length of the passing lane for average travel s Adj. factor for the effect of passing lane on average speed, fpl	speed, Ld	_	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFF	7Spl	- 0.0	%
Percent Time-Spent-Following with F	Passing La	ine	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	-	mi
the passing lane for percent time-spent-follows Adj. factor for the effect of passing lane on percent time-spent-following, fpl	ing, Ld	-	mi
Percent time-spent-following including passing lane, PTSFpl		-	%
Level of Service and Other Performance Measur	res with F	assing L	ane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E - v	reh-h	
Bicycle Level of Service	<u> </u>		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
5.	J
Flow rate in outside lane, vOL	260.9
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.21
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		F	ax:				
Direct	ional Two-La	ne Hig	hway :	Segment	Analys	is	
Analyst	kda						
Agency/Co. Date Performed	3/9/2020						
Analysis Time Period							
Highway	SR 49						
From/To	Auburn to S	SR 193					
Jurisdiction Analysis Year	Caltrans 2040 PLUS D	OTT 7 D	CENTED	л т			
Description Cool Dolla		OLLAR	GENER	AL			
Debotiperon coor Doile							
	I	input D	ata				
Highway class Class 1		Peak	hour :	factor,	PHF	0.92	
Shoulder width 2.				nd buses		6	%
				rawling		0.0	%
Segment length 8. Terrain type Ro				l speed onal veh		0.0	mi/hr %
	mi			ng zones		100	000
Up/down -	%		_	nt densi		8	/mi
Analysis direction volu		ve	h/h	ed			
Direction		Ana	lysis	(d)	rq0	posing (0)
PCE for trucks, ET			1.9			1.4	
PCE for RVs, ER			1.1			1.1	
Heavy-vehicle adj. fact		fHV				0.973	
Grade adj. factor, (note Directional flow rate, (0.93 528	pc/h		0.99 832	pc/h
Directional flow face,	iloce-2) vi		320	pc/II		034	pc/II
Free-Flow Speed from Fi		nent:					
Field measured speed, (r Observed total demand, (-	mi/h		
Estimated Free-Flow Spe	•			_	veh/h		
Base free-flow speed, (r				55.0	mi/h		
Adj. for lane and should		ote-3)	fLS	2.6	mi/h		
Adj. for access point of	lensity,(note	(-3) fA		2.0	mi/h		
Free-flow speed, FFSd				50.4	mi/h		
Adjustment for no-passi	na zones, fn	αι		1.3	mi/h		
Average travel speed, A		-T-		38.6	mi/h		
Percent Free Flow Speed				76.5	8		

Percent Time-Spent-Follow	ing		
· · · · · · · · · · · · · · · · · · ·	c/h	0pposing 1.0 1.0 1.000 1.000	pc/h
Base percent time-spent-following,(note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	55.3 % 27.8 66.1 %		
Level of Service and Other Perform	ance Meas	sures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	3416 24.1 1638 1700	veh-mi veh-mi veh-h veh/h veh/h	
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 38.6 66.1 E	mi mi mi mi/h
Average Travel Speed with Pass	ing Lane_		
Downstream length of two-lane highway within effective length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi
length of the passing lane for average travel and adj. factor for the effect of passing lane on average speed, fpl	speed, Ld	l – –	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	FSpl	0.0	%
Percent Time-Spent-Following with	Passing L	ane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	_	mi
the passing lane for percent time-spent-follow. Adj. factor for the effect of passing lane on percent time-spent-following, fpl	ing, Ld	-	mi
Percent time-spent-following including passing lane, PTSFpl		-	%
Level of Service and Other Performance Measu:	res with	Passing I	lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Service	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	464.1
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.50
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		Fax:				
Direct	ional Two-Lan	e Highway	Segment	Analys	is	
Analyst kda Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 49 From/To Auburn to Sr 193 Jurisdiction Caltrans Analysis Year 2040 PLUS DOLLAR GENERAL Description Cool Dollar General						
	In	put Data				
Segment length 8. Terrain type Ro Grade: Length - Up/down -	0 ft .0 ft 0 mi lling mi %	Peak hour : % Trucks a: % Truck craw % Recreation % No-passis Access poin	nd buses rawling l speed onal veh ng zones	icles	0.92 6 0.0 0.0 4 100	% % mi/hr % % /mi
Analysis direction volu Opposing direction volu						
	Average	Travel Spe	ed			
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor,(note Directional flow rate,(-1) fg	Analysis 1.4 1.1 HV 0.97 0.99 832	3		posing (1.9 1.1 0.945 0.93 528	o) pc/h
Free-Flow Speed from Fi Field measured speed, (n Observed total demand, (Estimated Free-Flow Spe Base free-flow speed, (n Adj. for lane and shoul Adj. for access point defined free-flow speed, FFSd	ote-3) S FM note-3) V ed: ote-3) BFFS der width,(no ensity,(note-	te-3) fLS 3) fA	- - 55.0 2.6 2.0 50.4	mi/h veh/h mi/h mi/h mi/h mi/h		
Adjustment for no-passi Average travel speed, A Percent Free Flow Speed	TSd		2.2 37.7 74.7	mi/h mi/h %		

Percent Time-Spent-Follows	ing		
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	c/h	pposing (1.4 1.0 0.977 0.94 506	o) pc/h
Percent time-spent-following, PTSFd	84.1 %		
Level of Service and Other Performa	ance Meası	ıres	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	5896 7 42.5 7 1536 7 1613 7	reh-mi reh-mi reh-h reh/h reh/h	
Passing Lane Analysis_			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 37.7 84.1 E	mi mi mi mi/h
Average Travel Speed with Pass	ing Lane		
Downstream length of two-lane highway within effect length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi
length of the passing lane for average travel s Adj. factor for the effect of passing lane on average speed, fpl	speed, Ld	_	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFF	FSpl	0.0	%
Percent Time-Spent-Following with I	Passing La	ane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	-	mi
the passing lane for percent time-spent-follows Adj. factor for the effect of passing lane on percent time-spent-following, fpl		_	mi
Percent time-spent-following including passing lane, PTSFpl		_	%
Level of Service and Other Performance Measur	res with I	Passing I	ane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E - 7	reh-h	
Bicycle Level of Service	=		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
	2
Pavement rating, P	3
Flow rate in outside lane, vOL	801.1
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.77
Bicycle LOS	F

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		Fa	.x:				
Direc	tional Two-La	ne High	way S	Segment .	Analys	is	
Analyst kda Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 49 From/To SR 193 TO COLOMA Jurisdiction Caltrans Analysis Year 2040 PLUS DOLLAR GENERAL Description Cool Dollar General							
	I:	nput Da	.ta				
Segment length 8	.0 ft 2.0 ft .0 mi pecific Grade .25 mi	% Truc % Truck % Recr % No-p	ks ar ks cr crawl eatic	awling speed	icles	0.92 6 0.0 0.0 4 100	% % mi/hr % % /mi
Analysis direction vol Opposing direction vol							
	Average	Travel	Spee	ed			
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fac Grade adj. factor,(not Directional flow rate,	e-1) fg	fHV	ysis(2.2 1.0 0.931 0.90 433	-		posing (1.3 1.0 0.982 1.00 374	o) pc/h
Free-Flow Speed from F Field measured speed,(Observed total demand, Estimated Free-Flow Sp Base free-flow speed,(Adj. for lane and shou Adj. for access point Free-flow speed, FFSd	note-3) S FM (note-3) V eed: note-3) BFFS lder width,(note-3)	ote-3)	fLS	- - 55.0 2.6 2.0	mi/h veh/h mi/h mi/h mi/h		
Adjustment for no-pass Average travel speed, Percent Free Flow Spee	ATSd	р		2.9 41.3 81.9	mi/h mi/h %		

Percent Time-Spent-Follow	ing		
Direction Analysis(d)		Opposing	(0)
PCE for trucks, ET 1.0		1.1	(0)
PCE for RVs, ER 1.0		1.0	
Heavy-vehicle adjustment factor, fHV 1.000		0.994	
-			
Grade adjustment factor, (note-1) fg 0.96	~ /b	1.00	/h
Directional flow rate, (note-2) vi 377 po		370	pc/h
Base percent time-spent-following, (note-4) BPTSFd		%	
Adjustment for no-passing zones, fnp	49.2	0	
Percent time-spent-following, PTSFd	65.5	%	
Level of Service and Other Performa	ance Me	easures	
Level of service, LOS	D		
Volume to capacity ratio, v/c	0.25		
Peak 15-min vehicle-miles of travel, VMT15	726	veh-mi	
Peak-hour vehicle-miles of travel, VMT60			
	2672	veh-mi	
Peak 15-min total travel time, TT15	17.6	veh-h	
Capacity from ATS, CdATS	1424		
Capacity from PTSF, CdPTSF	1637		
Directional Capacity	1424	veh/h	
Passing Lane Analysis			
Total length of analysis segment, Lt		8.0	mi
Length of two-lane highway upstream of the passing	lane.		mi
Length of passing lane including tapers, Lpl	ranc,	_	mi
Average travel speed, ATSd (from above)		41.3	mi/h
Percent time-spent-following, PTSFd (from above)		65.5	1111
Level of service, LOSd (from above)		D	
Level of Service, Losd (from above)		D	
Average Travel Speed with Pass	ing Lar	ne	
Downstream length of two-lane highway within effect	+ i v.o		
length of passing lane for average travel speed		_	mi
Length of two-lane highway downstream of effective			шт
length of the passing lane for average travel :		T A	m i
	speed,	<u>ца</u> –	mi
Adj. factor for the effect of passing lane			
on average speed, fpl		_	
Average travel speed including passing lane, ATSpl		-	0
Percent free flow speed including passing lane, PF	FSpI	0.0	%
Percent Time-Spent-Following with	Passing	g Lane	
		. 1	
Downstream length of two-lane highway within effect			
of passing lane for percent time-spent-following			mi
Length of two-lane highway downstream of effective			
the passing lane for percent time-spent-follows	ing, Lo	d –	mi
Adj. factor for the effect of passing lane			
on percent time-spent-following, fpl		-	
Percent time-spent-following			
including passing lane, PTSFpl		-	%
Level of Service and Other Performance Measu:	res wit	th Passing	Lane
	_		
Level of service including passing lane, LOSpl	E	, ,	
Peak 15-min total travel time, TT15	-	veh-h	
Bicycle Level of Service	۵		
project mever or pervice	·		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	363.0
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.37
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:		F	ax:				
Dire	ctional Two-La	ne Higl	hway S	Segment .	Analys	is	
Analyst kda Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 49 From/To SR 193 TO COLOMA Jurisdiction Caltrans Analysis Year 2040 PLUS DOLLAR GENERAL Description Cool Dollar General							
	I	nput Da	ata				
Segment length	2.0 ft 12.0 ft 8.0 mi Specific Grade 0.25 mi	% Truck % Truck % Rec: % No-]	cks ancks co crawl reation	cawling L speed	icles	0.92 6 0.0 0.0 4 100	% % mi/hr % % /mi
Analysis direction vo							
	Average	Trave	l Spe	ed			
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fac Grade adj. factor,(no	te-1) fg	fHV	lysis 2.2 1.0 0.933 0.90 438	L		posing (1.3 1.0 0.982 1.00 370	o) pc/h
Free-Flow Speed from Field measured speed, Observed total demand Estimated Free-Flow Spase free-flow speed, Adj. for lane and show Adj. for access point Free-flow speed, FFSd	<pre>(note-3) S FM ,(note-3) V peed: (note-3) BFFS ulder width,(n density,(note</pre>	ote-3)		- - 55.0 2.6 2.0	mi/h veh/h mi/h mi/h mi/h		
Adjustment for no-pass Average travel speed, Percent Free Flow Spee	ATSd	.p		2.9 41.2 81.8	mi/h mi/h %		

Percent Time-Spent-Follow:	Percent Time-Spent-Following						
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	c/h	Dpposing 1.1 1.0 0.994 1.00 365	(0) pc/h				
Percent time-spent-following, PTSFd		2					
Level of Service and Other Performa	ance Meas	sures					
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	D 0.26 735 2704 17.8 1424 1638 1424	veh-mi veh-mi veh-h veh/h veh/h					
Passing Lane Analysis							
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 41.2 66.5 D	mi mi mi mi/h				
Average Travel Speed with Pass:	ing Lane_						
Downstream length of two-lane highway within effect length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi				
length of the passing lane for average travel and adj. factor for the effect of passing lane on average speed, fpl	speed, Lo	d – –	mi				
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFI	FSpl	- 0.0	%				
Percent Time-Spent-Following with 1	Passing I	Lane					
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	_	mi				
the passing lane for percent time-spent-follow: Adj. factor for the effect of passing lane on percent time-spent-following, fpl		_	mi				
Percent time-spent-following including passing lane, PTSFpl		-	%				
Level of Service and Other Performance Measur	res with	Passing l	Lane				
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h					
Bicycle Level of Service	e						

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	367.4
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.38
Bicycle LOS	E

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: E-Mail:										
Direct	cional Two-La	ne High	way S	Segment .	Analys	is				
Analyst kda Agency/Co. Date Performed 3/9/2020 Analysis Time Period PM Peak Highway SR 193 From/To SR 49 TO GEORGETOWN Jurisdiction Caltrans Analysis Year 2040 PLUS DOLLAR GENERAL Description Cool Dollar General										
Input Data										
Lane width 12 Segment length 8.	0 ft 2.0 ft 0 mi pecific Grade 25 mi				icles	0.92 6 0.0 0.0 4 100	% % mi/hr % % /mi			
Analysis direction volume, Vd 538 veh/h Opposing direction volume, Vo 249 veh/h										
Average Travel Speed										
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adj. fact Grade adj. factor,(note Directional flow rate,	e-1) fg	fHV	ysis(1.1) 1.0 0.994 1.00 588	1		posing (2.3 1.1 0.923 0.86 341	o) pc/h			
Free-Flow Speed from Fifield measured speed, (robserved total demand, Estimated Free-Flow Speeds, (robserved) for lane and should Adj. for access point of Free-flow speed, FFSd	note-3) S FM (note-3) V eed: note-3) BFFS der width,(no	ote-3)	fLS	- - 55.0 2.6 2.0	<pre>mi/h veh/h mi/h mi/h mi/h mi/h</pre>					
Adjustment for no-passi Average travel speed, A Percent Free Flow Speed	ATSd	p		3.1 40.1 79.6	mi/h mi/h %					

Percent Time-Spent-Follows	ing								
Direction PCE for trucks, ET PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor, (note-1) fg Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	c/h	pposing (1.0 1.0 1.000 0.98 277	pc/h						
Percent time-spent-following, PTSFd	76.2 %								
Level of Service and Other Performa	ance Meas	ures							
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	4304 29.2 1660 1690	veh-mi veh-mi veh-h veh/h veh/h							
Passing Lane Analysis									
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane, Lu	8.0 - - 40.1 76.2 D	mi mi mi mi/h						
Average Travel Speed with Pass	ing Lane_								
Downstream length of two-lane highway within effect length of passing lane for average travel speed Length of two-lane highway downstream of effective		-	mi						
<pre>length of the passing lane for average travel s Adj. factor for the effect of passing lane on average speed, fpl</pre>	speed, Ld	l – –	mi						
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFF	⁷ Spl	- 0.0	%						
Percent Time-Spent-Following with B	Passing L	ane							
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	ng, Lde	_	mi						
the passing lane for percent time-spent-follows Adj. factor for the effect of passing lane on percent time-spent-following, fpl		-	mi						
Percent time-spent-following including passing lane, PTSFpl		_	8						
Level of Service and Other Performance Measur	res with	Passing I	ane						
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h							
Bicycle Level of Service	=								

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
	2
Pavement rating, P	3
Flow rate in outside lane, vOL	584.8
Effective width of outside lane, We	14.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	5.62
Bicycle LOS	F

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.



Delivery Truck Route—Cool Dollar General